ORDER NO. EMID0006011C0

A5

Service Manual

Digital Ensemble

SX-PR903C

(P) U.S.A., Mexico

(PC) Canada

(EX) Norway, Sweden, Denmark, Finland, Spain, Portugal, South Africa

(EF) France

(EZ) Germany

(EG) Switzerland, Italy, Austria, Holland, Belgium

(EB) the United Kingdom

(GN) Australia, New Zealand

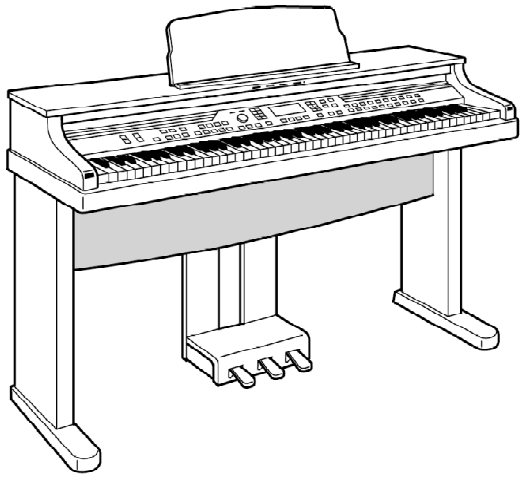
(XS) Malaysia, Singapore

(XT) Taiwan

(X) Thailand, Columbia, Panama, Chile, Brazil, Philippines, Venezuela, Ecuador

(XA) Argentina

(XD) Saudi Arabia, Hong Kong, Kuwait



SPECIFICATIONS

SPECIFICATIONS

KEYBOARD	88 KEYS
SOUND GENERATOR	PCM
MAX. POLYPHONY	64 NOTES
SOUNDS	NUMBER OF SOUNDS: 1009 SOUNDS + 33 DRUM KITS + 2 DIGITAL DRAWBARS PIANO GROUP: GRAND, UPRIGHT, ELECTRIC, MODERN SOUND GROUP: GUITAR & HARPSI, STRINGS, BRASS,VOCAL, SAX & WOODWIND, ORGAN & ACCORDION, SYNTH, MALLET & ORCH PERC, BASS, DRUM KITS, SOUND EXPLORER, PIANO MIXTURES, ORCHESTRAL MIXTURES, DIGITAL DRAWBAR
PIANIST SONG	Supported
SIMPLE PIANO	Supported
FAVORITES	Supported
PEDAL	SUSTAIN, SOSTENUTO, SOFT
EFFECT	DIGITAL EFFECT, MULTI EFFECT, BRILLIANCE, REVERB, CHORUS, SOLO
PART SELECT	RIGHT1, RIGHT2, LEFT
TRANSPOSE	2 OCTAVES
RHYTHMS	NUMBER OF RHYTHMS:128 RHYTHMS × 4 VARIATIONSRHYTHM GROUP: 8 & 16 BEAT, JAZZ COMBO, COUNTRY & WESTERN, BALLAND, LATIN & WORLD, SOUL & DISCO, GOSPEL & BLUES, BIGBAND & SWING, MARCH & WALTZ, BALL ROOM & SHOW TIME
METRONOME	Supported
CONTROLS	MAIN VOLUME, APC/ SEQUENCER VOLUME, BALANCE, MUTE, CONDUCTOR, START/STOP, INTRO & ENDING 1, INTORO & ENDING 2, FILL IN 1, FILL IN 2, COUNT INTRO, SYNCHRO START, TEMPO/ PROGRAM,TAP TEMPO, FADE IN/OUT, SPLIT POINT, R1/R2 OCTAVE
PIANO PERFORMANCE PADS	20 BANKS × 6 PADS WITH SOLO(USER BANK × 3, COMPILE BANKS × 2, CONTROL PRESET × 1) STOP, AUTO SETTING

AUTO PLAY CHORD	**MODE: BASIC, ADVANCED 1, ADVANCED 2, PIANIST ON BASS, CHORD FINDER, LEFT HOLD**
MUSIC STYLE ARRANGER	**Supported**
SOUND ARRANGER	**Supported**
PIANO STYLIST	**Supported**
ONE TOUCH PLAY	**Supported**
TECHNI-CHORD	**Supported**
PANEL MEMORY	**3 BANKS × 8, SET, NEXT BANK, BANK VIEW**
SEQUENCER	**16 TRACKS**
	RESOLUTION: 1/96 PER BEAT
	STRAGE CAPACITY: APPROX.40000 NOTES (10 SONGS MAX.)
	INPUT MODES: EASY RECORD, REALTIME RECORD, STEP RECORD FUNCTIONS: RECORD & EDIT, COPY & PASTE,RANGE EDIT
COMPOSER	**5 PARTS: BASS, ACCOMP 1-5, DRUMS 1, 2**
	STRAGE CAPACITY: APPROX.13000 NOTES
	INPUT MODES: REALTIME RECORD, STEP RECORD
	FUNCTIONS: PATTERN COPY, SEQ TO COMPOSER COPY, LOAD SINGLE COMPOSER
	MEMORY:3 BANKS
DISK DRIVE	**3.5 inch FLOPPY DISK DRIVE for 2HD (1.44 MB), 2DD (720 KB)**
	LOAD, SAVE, DIRECT PLAY, SONG MEDLEY, DISK TOOLS, PREFERENCES
SOUND SETTING	**PART SETTING, MIXER, MASTER TUNING, KEY SCALING, TECHNI-CHORD, SOUND EDIT (40 MEMORIES)**
REVERB & EFFECT	**TONE CONTROL, REVERB, CHORUS, MULTI, SOUND LOAD OPTION, MIXER**
CUSTOMIZE	**DISPLAY TIMEOUT, DATA PROTECTION, FAVORITES SETTING, MIDI SETTING LOAD OPTION, LAGUAGE SETTING, DISK PREFERENCE**
CONTROL	**INITIAL, PEDAL SETTING, PANEL MEMORY MODE, MUSIC STYLE ARRANGER MODE, FADE IN/OUT SETTING**
DISPLAY	**LCD: PAGE, CONTRAST, EXIT, DISPLAY HOLD**
HELP	**Supported**
DEMO	**Supported**

TERMINALS	PHONES × 2, LINE OUT (R/R+L,L), AUX IN (R/R+L,L), COMPUTER, MIDI (IN, OUT, THRU), PEDAL IN
MIC INPUT	Supported (MIC REVERB & EFFECT)
OUTPUT	240 W (120 W × 2)
SPEAKERS	20 cm × 2, 6.5cm × 2, MONITOR SPEAKER × 2
POWER REQUIREMENT	200 W AC120/220/230-240V 50/60 Hz AC120V 60 Hz (NORTH AMERICA AND MEXICO) AC230-240 50/60 Hz (EUROPE, AUSTRALIA AND NEW ZEALAND)
DIMENSIONS (W×H×D)	140.9 cm × 108 cm × 62.9 cm (55-15/32" × 42-17/32" x 24-3/4")
NET WEIGHT	78.5 kg (173.1 lbs.)
ACCESSORIES	AC CORD, FLOPPY DISK, SONG BOOK

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

1. WARNING

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be sure to follow the safety guidelines below.

1. At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner'sManual.
2. Parts which have a ⚠ mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use only the specified parts.
3. Use the specified types for internal wiring (double-insulated wiring, etc.).
4. When replacing parts on the AC primary side (power transformer,

electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.

5. **Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).**
6. **When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.**
7. **When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.**
8. **Spacing**
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (between the primary circuit and the chassis: atleast 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least 6.5 mm.).

2. SAFETY PRECAUTION

2.1. Safety precaution

1. **Before servicing, unplug the power cord to prevent an electric shock.**
2. **When replacing parts, use only the manufacturer's recommended components for safety.**
3. **Check the condition of the power cord. Replace if wear or damage is evident.**
4. **After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.**
5. **Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.**

2.2. Insulation resistance test

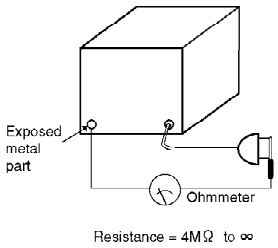
1. **Unplug the power cord and short the prongs of the plug with a**

jumper wire.

2. Turn on the power switch.

3. Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc. Measurements should range from 4 M Ohm to infinity for allexposed parts.

Figure-1



3. OWNERS MANUAL

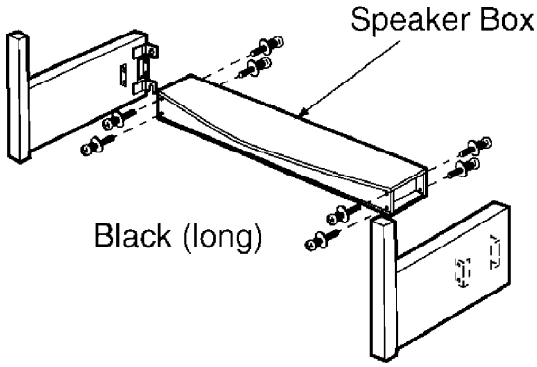
4. HOW TO ASSEMBLE THE PIANO

To prevent the piano unit from falling off the stand, secure it firmly with the screws.

1. Assemble the right and left planks

- Assemble the right and left planks to the speaker box with the 8 long block screws.

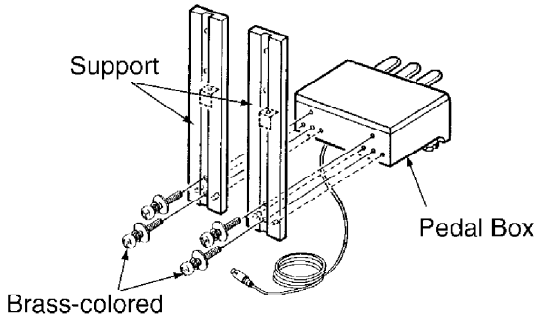
Figure-2



2. Assemble the pedal box and the support

- Assemble the pedal box and the support with the 4 brass-colored screws and left planks

Figure-3

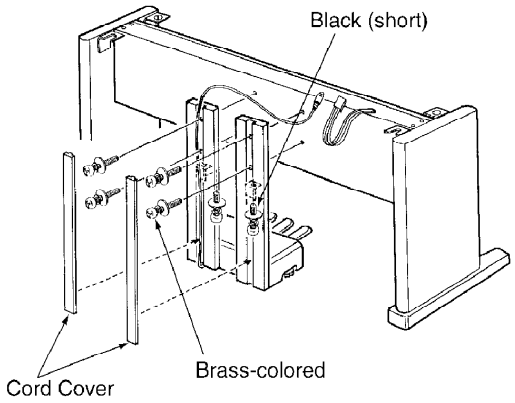


3. Place the stand upright and mount the pedal box unit to the speaker box

- Place the stand upright and mount the pedal box unit to the speaker box with 4 brass-colored screws and 2 short block screws.

- And lay the pedal cord in the groove on the support (left), and then set 2 cord covers in right and left grooves.

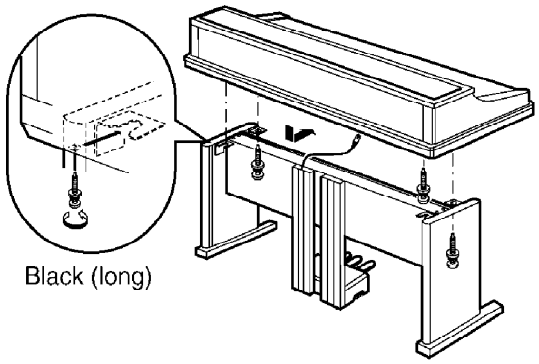
Figure-4



4. Place the piano body

- Place the piano unit on the stand and secure it with 4 long black screws.

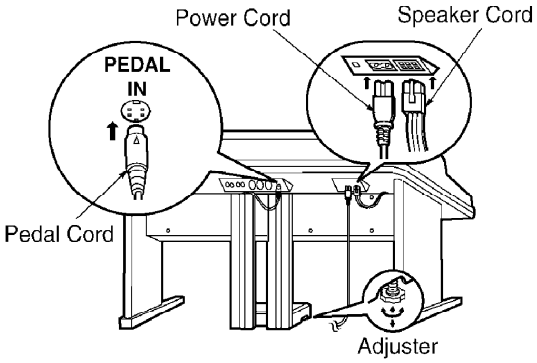
Figure-5



5. Connect the pedal cord, speaker cord and power cord

- Connect the pedal cord and power cord to the terminals located on the rear of the piano unit as shown below.

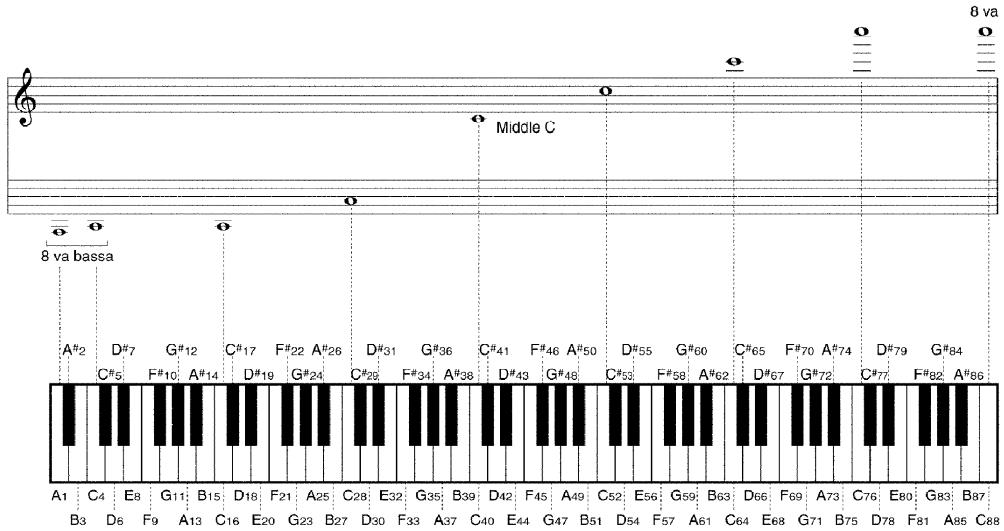
Figure-6



5. KEYBOARD RANGES

This keyboard features Touch Response, by which you control the volume by playing the keys harder or softer.

Figure-7



6. PARTS LOCATION

Figure-8

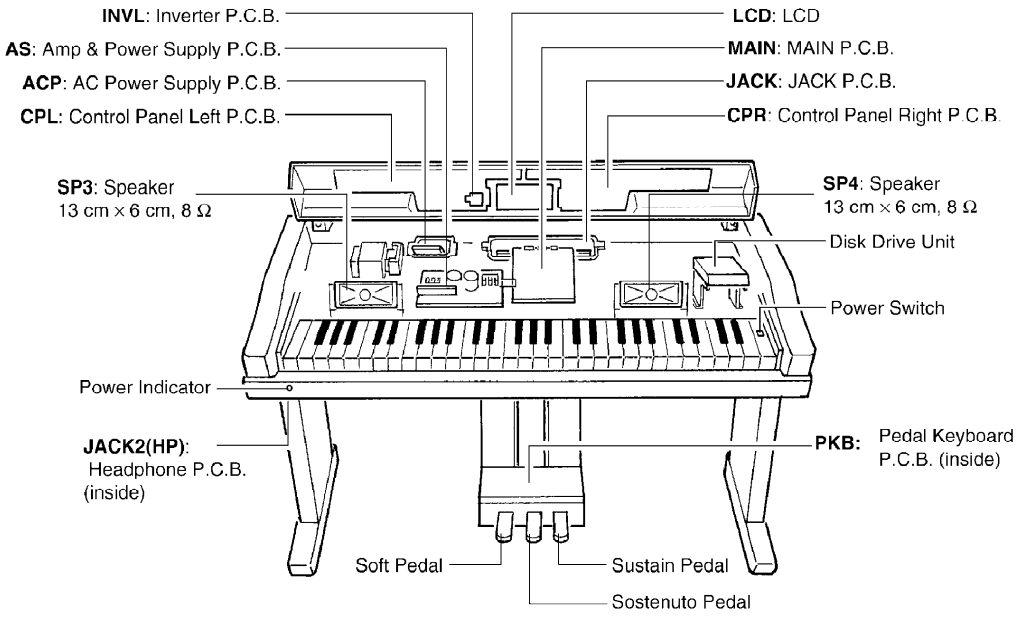
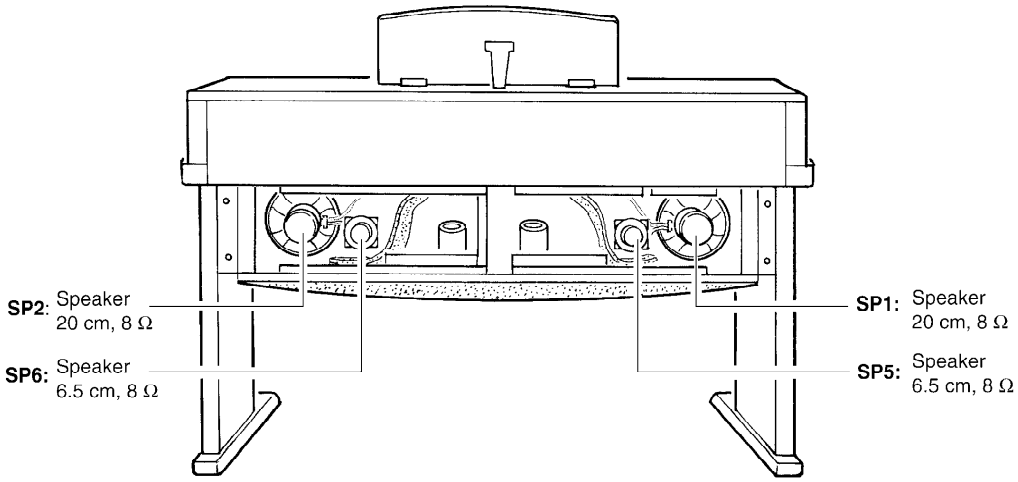

INVL: Inverter P.C.B.
AS: Amp & Power Supply P.C.B.
ACP: AC Power Supply P.C.B.
CPL: Control Panel Left P.C.B.
LCD: LCD
MAIN: MAIN P.C.B.
JACK: JACK P.C.B.
CPR: Control Panel Right P.C.B.
SP3: Speaker 13 cm × 6 cm, 8 Ω
SP4: Speaker 13 cm × 6 cm, 8 Ω
Disk Drive Unit
Power Switch
Power Indicator
JACK2(HP): Headphone P.C.B. (inside)
PKB: Pedal Keyboard P.C.B. (inside)
Soft Pedal
Sustain Pedal
Sostenuto Pedal

Figure-9



7. DISASSEMBLY INSTRUCTIONS

7.1. Removing the top cover

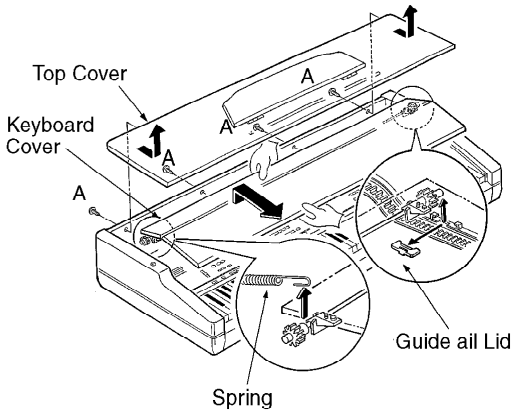
1. Remove the top cover mounting screws (A × 4 pcs.) as shown in Figure-11 .
2. Slide the top cover forward and lift up (as shown by the arrows).

7.2. Removing the keyboard cover

1. Remove the top cover (see step "Removing the top cover ").
2. Release the spring from the shaft.
3. Remove the guide rail lids from the guide rails.

4. Match the gears of the keyboard cover with the notches in the guide rail, and lift up the keyboard cover as shown in Figure-11 .

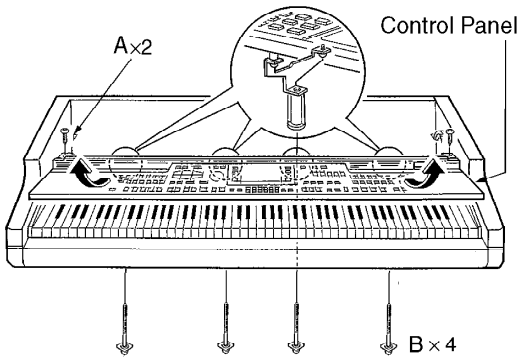
Figure-10



7.3. Removing the control panel

1. Remove the keyboard cover (see step "Removing the keyboard cover ").
2. Remove the control panel mounting screws (A × 2 pcs. and B × 4 pc.) as shown in Figure-11 .
3. Slide the control panel forward and pull out (as shown by the arrows).

Figure-11

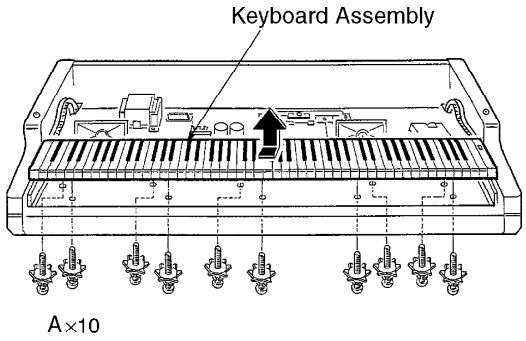


7.4. Removing the keyboard assembly

1. Remove the control panel (see step "Removing the control panel).
2. Remove the keyboard assembly mounting screws located on the

bottom of the cabinet (A × 10 pcs.) as shown in Figure-12 .

Figure-12



7.5. Key(s)

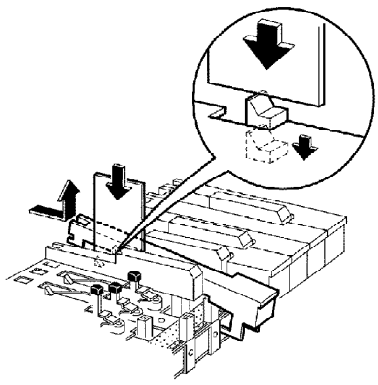
Disassembly

1. **Remove the keyboard assembly (see step "Removing the keyboard assembly ").**
2. **While inserting a thin plate to press down a claw, push the rear of the key forward to disengage the key claw from the chassis.**
3. **Lift the key up to remove it.**

Note:

- **The key claw is easily broken. Do not apply undue force. Should a key claw break, it can still be used.**
- **If a black key is to be replaced, it is necessary to remove both adjacent white keys.**

Figure-13



/ / / /

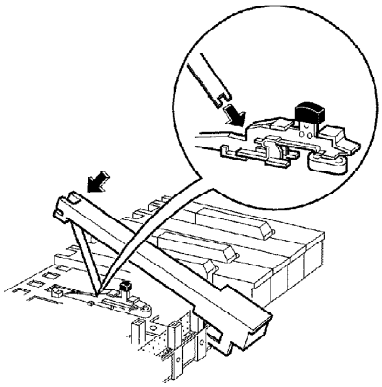
Assembly

1. **Insert the front part of the key into the chassis.**
2. **Insert the plate spring into the hammer notch as shown in Figure-**

15 .

3. While slowly lowering the key into the chassis, insert the plate spring into the notch at the rear of the key.
4. Carefully insert the key into the opening in the chassis and slide the key towards the rear to lock it in place.

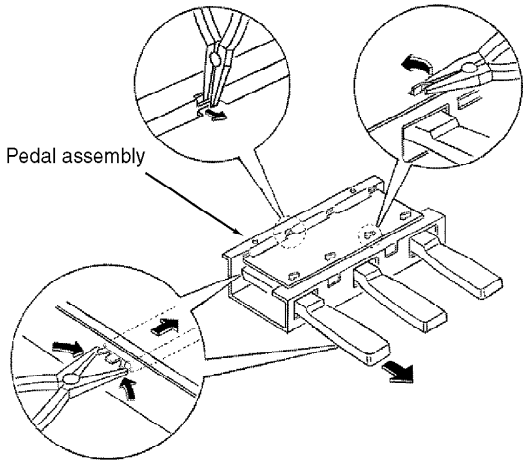
Figure-14



7.6. Disassembly of the pedal assembly

1. Remove the pedal assembly from the pedal box.
2. Disassemble the pedal assembly as shown in Figure-15 .

Figure-15



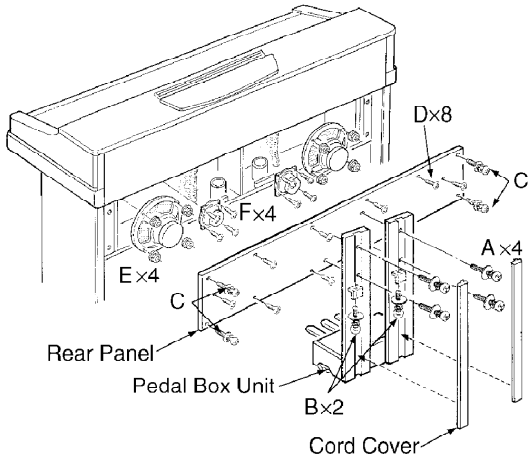
7.7. Removing the pedal box unit

1. Remove the cord covers.
2. Remove the pedal box unit mounting screws (A × 4 pcs. and B × 2 pcs.).

7.8. Removing the speaker

1. Remove the pedal box unit (see step "Removing the pedal box unit ").
2. Remove the rear panel mounting screws (C × 4 pcs. and D × 8 pcs.).
3. Remove the 20 cm speaker mounting screws (E × 4 pcs.).
4. Remove the 6.5 cm speaker mounting screws (F × 4 pcs.).

Figure-16



7.9. Removing the printed circuit boards

- Remove the keyboard cover (see step "Removing the keyboard cover ").
- Pull out the connectors on the printed circuit boards.

MAIN P.C.B.

1. Remove the MAIN P.C.B. mounting screws (A x 2 pcs, B x 3 pcs.).
2. Release the claws of the 3 P.C.B. holders.

AS P.C.B.

1. Release the claws of the 9 P.C.B. holders.
2. Remove the ground wire holding screws (C x 2 pcs.).

JACK P.C.B.

1. Remove the MAIN P.C.B.
2. Remove the JACK P.C.B. mounting screws (D x 2 pcs.).
3. Remove the ground wire holding screws (E x 4 pcs., F x 2 pcs.).

JACK2 (HP) P.C.B.

1. Remove the keyboard assembly (see step "Removing the

keyboard assembly ”).

2. Remove the HP P.C.B. mounting screws (G x 2 pcs.)
3. Remove the headphone jack mounting nuts (H x 4 pcs.).

ACP P.C.B.

- Release the claws of the AC IN connector bracket.

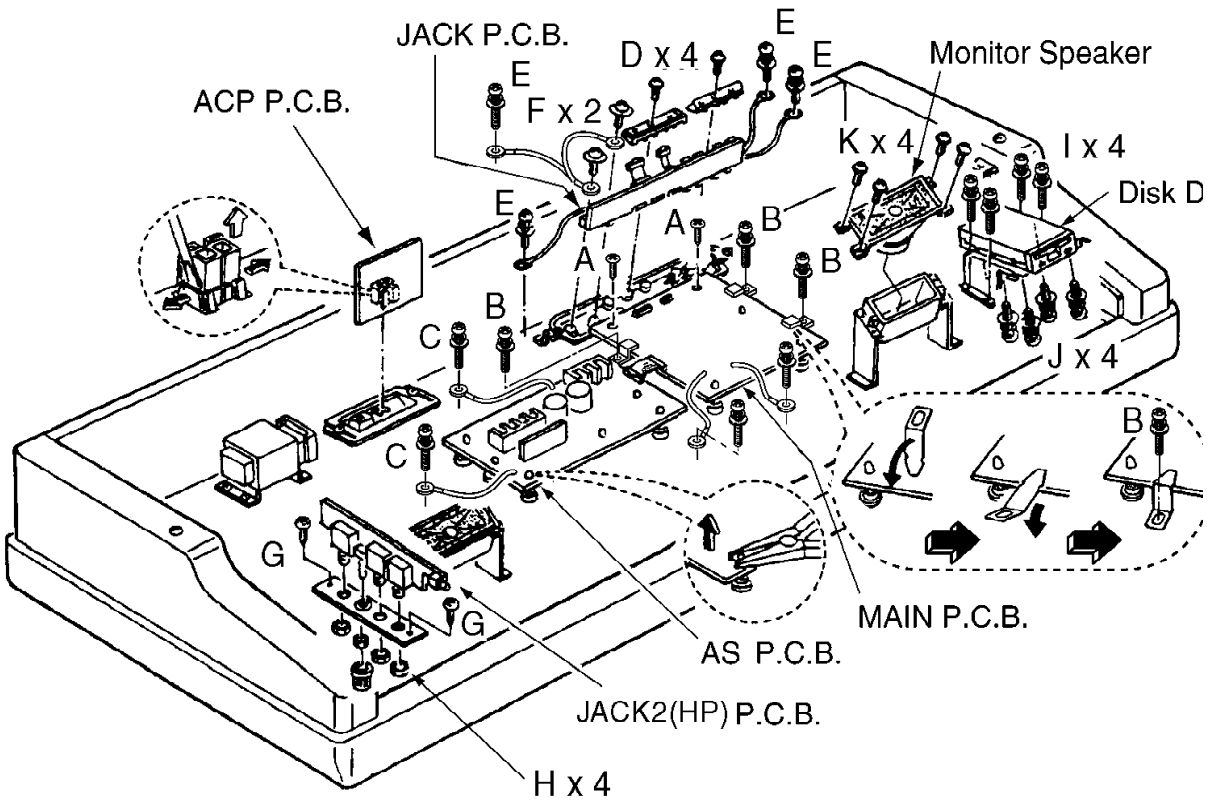
7.10. Removing the Disk Drive unit

1. Remove the keyboard cover (see step “Removing the keyboard cover ”).
2. Pull out the connector from the Disk Drive unit.
3. Remove the chassis on which Disk Drive unit is attached (I x 4 pcs.).
4. Remove the Disk Drive unit mounting screws (J x 4 pcs.).

7.11. Removing the monitor speakers

1. Remove the keyboard cover (see step “Removing the keyboard cover ”).
2. Remove the monitor speaker mounting screws (K x 4 pcs.).

Figure-17



7.12. Removing the LCD, INVL P.C.B.

- Remove the control panel (see step "Removing the control panel ").

LCD P.C.B.

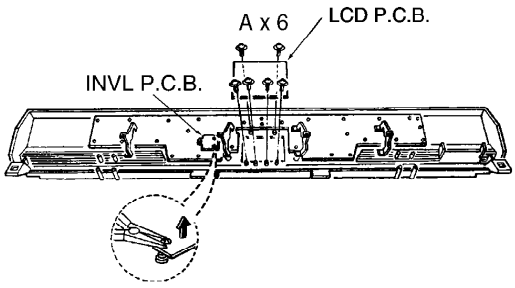
- Remove the LCD P.C.B. mounting screws (A x 6 pcs.).

INVL P.C.B.

1. Release the claws of the 3 P.C.B. holders.

2. Remove the INVL P.C.B.

Figure-18



7.13. Removing the CPL, CPR P.C.B.

- Remove the control panel (see step "Removing the control panel).

CPR P.C.B.

1. Remove the CP mount bracket (A x 2 pcs., B x 2 pcs.).

2. Remove the CPR P.C.B. mounting screws (C x 15 pcs.).

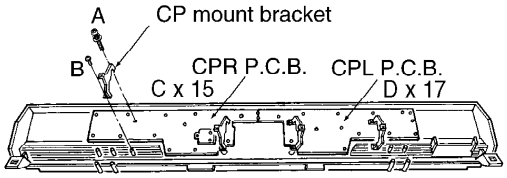
CPL P.C.B.

1. Remove the CP mount bracket (A x 2 pcs., B x 2 pcs.).

2. Pull the MAIN VOLUME knob.

3. Remove the CPL P.C.B. mounting screws (D x 17 pcs.).

Figure-19



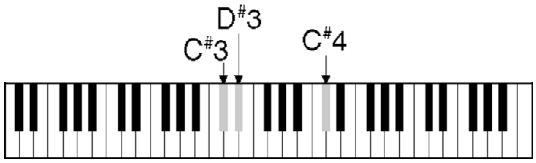
8. SERVICE DIAGNOSTIC FUNCTION

The service diagnostic function makes it possible to determine whether the various test modes pass or fail. The test modes are completely independent of one another. Select a test mode as necessary, and run the test.

To set to the service diagnostic mode:

1. Press and hold the C#3, D#3, C#4 keys, and then turn on the power switch.

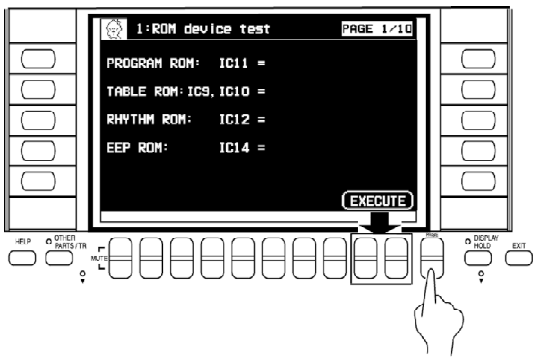
Figure-20



2. After the service diagnostic screen is displayed on the LCD, release the three keys.

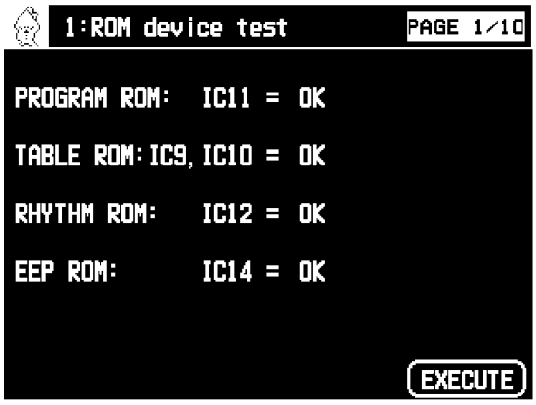
3. Use the PAGE button below the display to select the respective test.

Figure-21



8.1. ROM device test

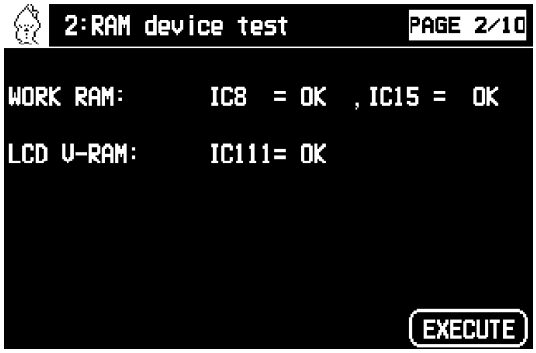
Figure-22



- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within a few seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause ofthe failure.

8.2. RAM device test

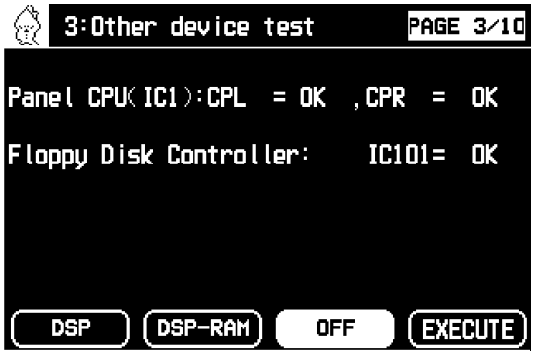
Figure-23



- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within few seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause ofthe failure.

8.3. Other device test

Figure-24



- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within few seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause ofthe failure.
- If the DSP button is on, the “sine wave” sound will be heard when the DSP device works fine.
- If the DSP-RAM button is on, the repeated sound will be heard by any key down when the DSP-RAM device works fine.
- To stop these effect, push the OFF button.

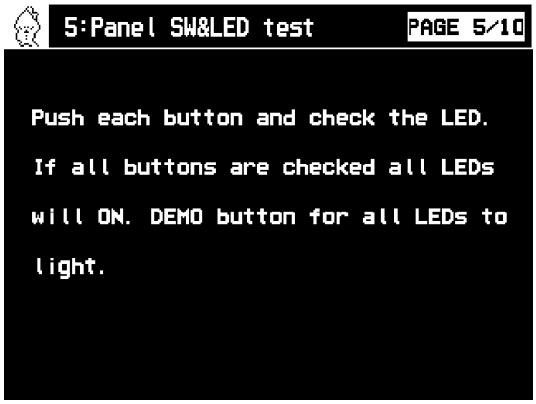
8.4. Floppy Disk SAVE/LOAD test

Figure-25

- Insert a formatted floppy disk into the Disk Drive. Press the START button to begin the test.
- The test is carried out repeatedly. Data is saved and loaded, and then the two data sets are compared. The number of times that the test results in OK or NG are counted and displayed on the LCD. To interrupt the test, press the STOP button.
- Even when the Floppy Disk Drive is functioning properly, the test can result in NG. If this happens frequently, clean the magnetic heads of the Floppy Disk Drive with a cleaning disk. Then, change the disk used in testing with another disk andreperform the test. If the trouble is not solved, it is likely that the Disk Drive unit or some other part of the hardware is broken.

8.5. Panel SW & LED test

Figure-26


5:Panel SW&LED test
PAGE 5/10
Push each button and check the LED.
If all buttons are checked all LEDs
will ON. DEMO button for all LEDs to
light.

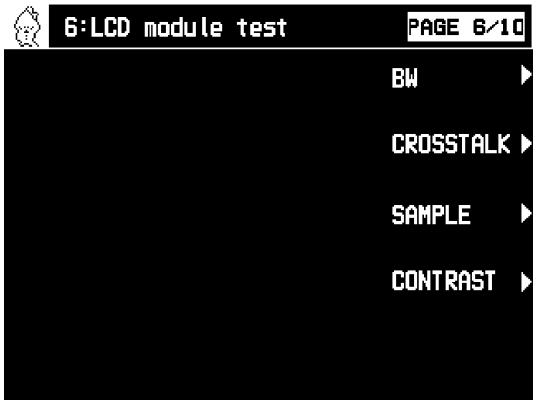
- Press all the buttons on the Control Panel and confirm that the corresponding LED lights.
- If an LED fails to light, the cause may be a defective switch or a break in the surrounding circuit, etc.
- After all the buttons have been pressed, all the PANEL MEMORY LEDs light. If all switches are OK, “ALL SW OK” is shown on the

LCD. (If a switch is defective, nothing is shown.)

- To light all the LEDs, press and hold the DEMO button. If an LED fails to light, the LED may be defective or there may be a break in the surrounding circuit.

8.6. LCD module test (LCD adjustment and confirmation)

Figure-27



- Press the BW, CROSSTALK, SAMPLE or CONTRAST button to begin the respective test.

BW:

All the dots light white and black. The display can be held by pressing the DISPLAY HOLD button.

CROSSTALK:

An H pattern is shown. LCD crosstalk can be evaluated. To exit this test, press the EXIT button.

SAMPLE:

Several display patterns shown during normal use are shown. The display can be held by pressing the DISPLAY HOLD button.

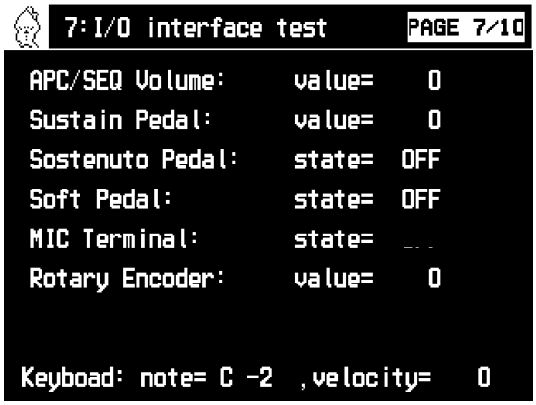
CONTRAST:

The test pattern is shown. Adjust the contrast by the CONTRAST control on the left of the LCD. To exit this test, press the EXIT button.

- If the correct display is not shown during these tests, the LCD or LCD drive circuit may be defective.

8.7. In & Out interface test

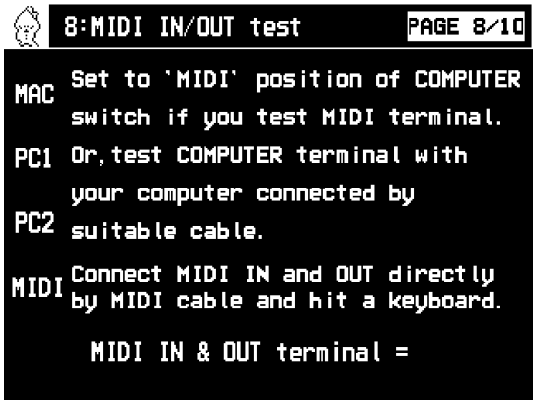
Figure-28



- The operation status of each input action part can be confirmed. If the part is operating properly, “OK” is shown, excluding the Sustain Pedal.
- When a keyboard key is pressed, the corresponding pitch and velocity are displayed (only as long as the key is depressed).
- The respective statuses for other input action parts are displayed. (Analog parts are shown as numerical values from 0 to 255, and switches are shown as ON or OFF.)
- If the display fails to change when the part is operated, or if the change is abnormal, it may indicate a defective part.

8.8. MIDI IN/OUT test

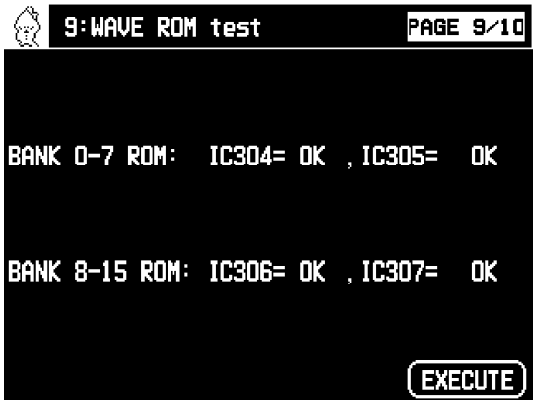
Figure-29


8:MIDI IN/OUT test
PAGE 8/10
MAC
PC1
PC2
MIDI
Set to 'MIDI' position of COMPUTER switch if you test MIDI terminal.
Or,test COMPUTER terminal with your computer connected by suitable cable.
Connect MIDI IN and OUT directly by MIDI cable and hit a keyboard.
MIDI IN & OUT terminal =

- First, set the COMPUTER terminal switch to MIDI.
- Use a MIDI cable to directly connect the MIDI IN and MIDI OUT terminals.
- When a keyboard key is pressed, the transmitted and received data are compared and the MIDI terminal operation is indicated as being OK or NG.
- If NG is shown, check both the IN and OUT terminals, as well as the circuit.

8.9. WAVE ROM test

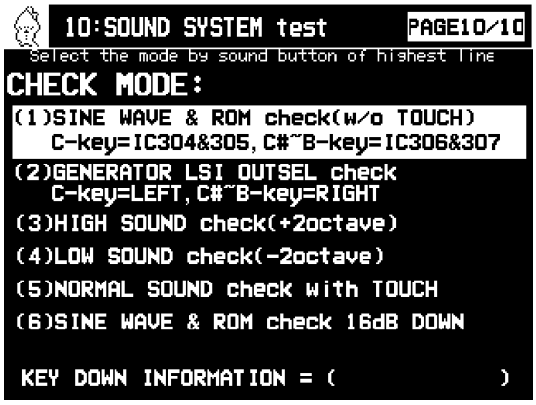
Figure-30



- Press the EXECUTE button to start the test.
- The test result (OK or NG) is displayed within thirty seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the causeof the failure.

8.10. SOUND SYSTEM test

Figure-31


10:SOUND SYSTEM test
PAGE10/10
Select the mode by sound button of highest line
CHECK MODE:
(1)SINE WAVE & ROM check(w/o TOUCH)
C-key=IC304&305, C#~B-key=IC306&307
(2)GENERATOR LSI OUTSEL check
C-key=LEFT, C#~B-key=RIGHT
(3)HIGH SOUND check(+2octave)
(4)LOW SOUND check(-2octave)
(5)NORMAL SOUND check with TOUCH
(6)SINE WAVE & ROM check 16dB DOWN
KEY DOWN INFORMATION = ( )

- Use the button in the SOUND GROUP to select an item from 1 to 6 as shown in Figure-32 . Press a keyboard key.

Figure-32

1. Generate a full amplitude sine wave in the pitch of each key. (No touch, fixed stereo center).
   If no sound is generated or if the sound is distorted, the sound

generator ROM corresponding to the key position is defective.

2. **For confirming the output pathway from the sound generator. (Fixed scale, no touch)**
   The Lch and Rch sound outputs are confirmed separately.
3. **Generate a full amplitude sine wave in the pitch of each key +2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
4. **Generates a full amplitude sine wave in the pitch of each key -2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
5. **Generate a sine wave in the pitch of each key with touch.**
   You can confirm if the volume changes depending on the touch.
6. **Generate a full amplitude sine wave in the pitch of each key at a -16 dB volume. (No touch, fixed stereo center)**
   You can confirm the same sound output as in 1, at a lower volume.

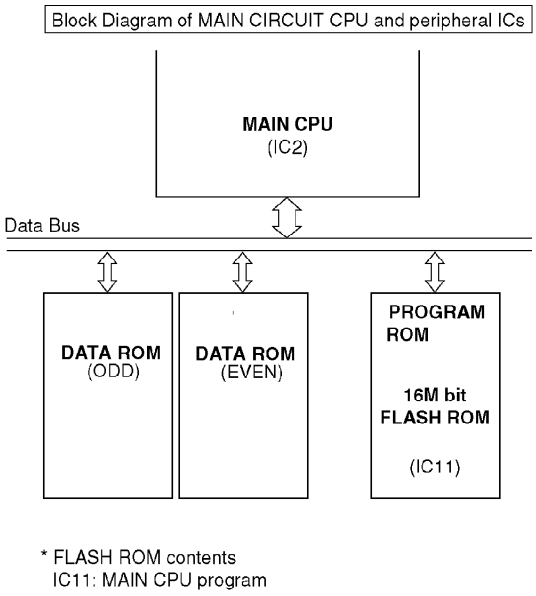
9. PRECAUTIONS BEFORE SERVICING THE MAIN CIRCUIT

This model employs a FLASH ROM (EEPROM) for the PROGRAM ROM. If changing this ICs, service the MAIN CIRCUIT as explained here following.

9.1. About the FLASH ROM

The FLASH ROM can be electrically erased and rewritten. This model is designed so that the repair technician can easily write and change programs and data in the FLASH ROM, by using a floppy disk.

Figure-33



9.2. Notes on replacing FLASH ROMs

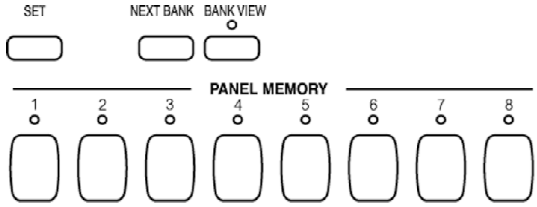
The replacement parts include a FLASH ROM with a available memory and the PROGRAM DISKs which contains the program to be written into the PROGRAM ROM. After replacing the PROGRAM ROM, always write the program into it from the PROGRAM DISKs includedin the replacement parts. For details on programming, see "After replacing the PROGRAM ROM (IC11) ".

9.3. How to write program into FLASH ROM

9.3.1. After replacing the PROGRAM ROM (IC11)

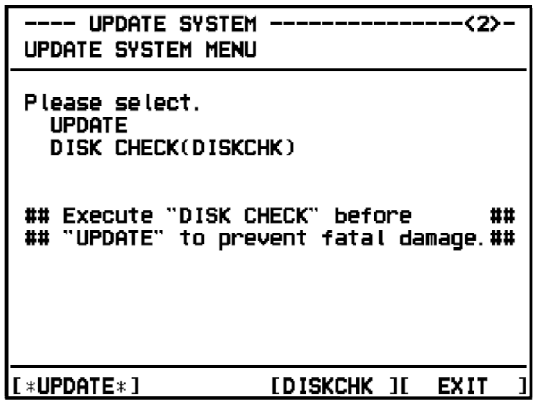
1. **Set the PROGRAM DISK A (or No.1) included in the replacement parts into the Floppy Disk Drive.**
2. **Hold down the PANEL MEMORY buttons 1 , 2 , 3 and 4 (as shown in Figure-34), and turn on the power switch.**

Figure-34



3. **Check "UPDATE SYSTEM MENU" screen is displayed on the LCD, and release the PANEL MEMORY buttons.**
   Select [*UPDATE*] button under the display.

Figure-35



4. In next FLASH MEMORY UPDATE screen, confirm the procedure and push [*UPDATE*] button again.
5. In next <PROGRAM VERSION INFO> screen, confirm the version at “NOW(CURRENT) =“ column is “Ver F.F.”
   If the version to update from disks is latest, proceed to update by [*UPDATE*] button.
   The program will be written into the FLASH ROM automatically. Replace the floppy disk B (or No.2) when instructed.
6. When the operation is completed, “Completed!!” will be displayed on the LCD.
7. Turn the power switch off and then back on again. Check the instrument is functioning properly.

10. PRECAUTIONS BEFORE SERVICING

10.1. Precautions for measuring of the output waveforms

1. The waveform was measured with a “National Digital Storage Oscilloscope VP-5730A”. Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform illustration is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the service diagnostic mode (refer to “Wave ROM test on SERVICE DIAGNOSTIC FUNCTION ”). The WAVE ROM output will then be output as asine wave to facilitate the servicing check.

10.2. Important safety notice

- Components identified by a ⚠ mark have special characteristics important for safety.
- When replacing any of these components, use only manufacture's specified parts.

10.3. Symbolic marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following Table-1 and Table-2 .

10.3.1. Resistors

- Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
- All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

Table-1

SYMBOL	SPECIFICATION
Ⓕ	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)
Ⓕ	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)
Ⓕ	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)
Ⓕ	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
Ⓖ	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)
F	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
F	Fuse Type Fixed Carbon Film Resistors "FLAME-PROOF" (ERD2FC—type)

10.3.2. Capacitors

- Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10% Tolerance)
- Polarized capacitors without symbolic mark are Aluminum Electrolytic Capacitors. (ECEA-type, ±20% Tolerance)

Table-2

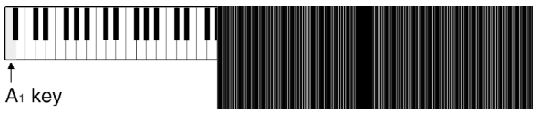
SYMBOL	SPECIFICATION	TYPE
(N)	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
(Y)	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
(T)	Tantalum Solid Electrolytic Capacitors	ECS_type
(TF)	Metallized Plastic Film Capacitors (TF Series)	ECQV_type
◯	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielecytric Constant Ceramic Capacitors	ECK_type, ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metallized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

11. MEASURING CONDITION

11.1. Measuring condition of MAIN P.C.B.

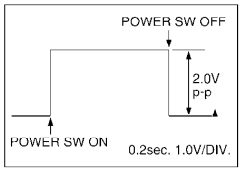
Check Point 3 - 5
Set to the Self-diagnostic Mode followings.

- While pressing two E keys simultaneously, turn on the power switch.
- SOUND : SOUND EXPLORER
- MAIN VOLUME: Max.
- Keyboard: A1



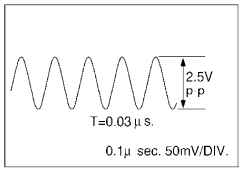
Check Point 1
Set to the Initial mode (refer to "OWNERS MANUAL ").

❶ RESET

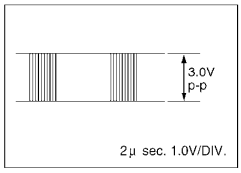


• Power SW ..... ON • OFF

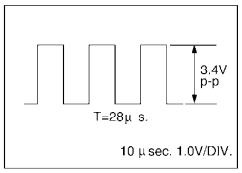
❷ TG CLOCK



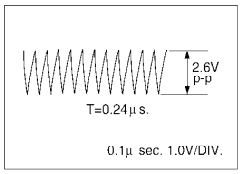
❸



❹



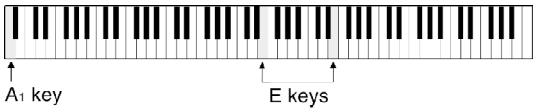
❺



11.2. Measuring condition of AS P.C.B.

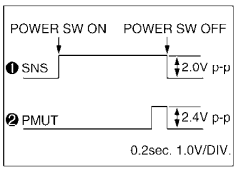
Check Point 3 - 8
Set to the Self-diagnostic Mode followings.

- **While pressing two E keys simultaneously, turn on the power switch.**
- **SOUND : SOUND EXPLORER**
- **MAIN VOLUME: Max.**
- **Keyboard: A1**



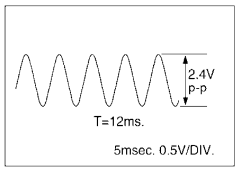
Check Point 1
Set to the Initial mode (refer to "OWNERS MANUAL ").

❶ SNS, ❷ PMUT

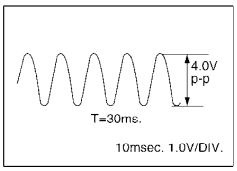


• Power SW ..... ON - OFF

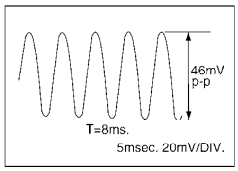
❸ SUML , ❹ SUMR



❺ HPL, ❻ HPR



❼ SPL, ❽ SPR



12. SCHEMATIC DIAGRAM

13. PRINTED CIRCUIT BOARD

14. BLOCK DIAGRAM

15. WIRING CONNECTION DIAGRAM

16. REPLACEMENT PARTS LIST

Notes:
***Important safety notice:**
Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***ACHTUNG: Die lasereinheit nicht zerlegen. Die lasereinheit darf nur gegen einc vom hersteller spezifizierte einheit ausgetauscht werden.**
***Capacity values are in microfarads (uF) unless specified otherwise. P=Pico-farads (pF), F= farads (F)**
***Resistance values are in ohms, unless specified otherwise. 1K=1,000 (OHM), 1M=1,000K (OHM)**
***The marking <RTL> indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retentionperiod of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.**
***"<IA>"-"<IH>" marks in Remarks indicate languages of instruction manuals. [<IA>: Dansk, <IB>: English, <IC>: English, <ID>:French, <IE>: Germany, <IF>: Italiano, <IG> : Espanol, <IH>: Nederlands]**
***MAIN, CPL, CPR, JACK2, INVL, JACK, AS, ASUB, ACP, PKB, MKB1 and MKB2 in Remarks indicate the Circuits and P. C. B.s. If the same Ref. No. is found in the replacement parts list,**

check those indications in the Remarks.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	QMFG1083AB	FELT	1	
2	SBLG7-2	STAY	1	
3	QYAG1047AAZ	MUSIC STAND	1	
4	SBHG5003-2	HINGE	2	
5	QKQGA134BAZ	TOP COVER ASS'Y	1	
5-1	QMFG1221AA	FELT	2	
5-2	QMFG1222AA	FELT	1	
5-3	SGBG160B	BADGE	1	
6	QKQGF035AAZ	KEY BOARD COVER ASS'Y	1	
6-1	QGKG0095AA	ORNAMENT	1	
6-2	QMFG1258AA	FELT	2	
6-3	QMRG7031EC	PROTECTOR	1	
6-4	QMRG7032EC	PROTECTOR	1	
6-5	QMFG1259AA	FELT	2	
6-6	QMFG1260AA	FELT	2	
6-7	QMFG1262AA	FELT	1	
6-8	QMFG1261AA	FELT	1	
6-9	QXQG007AA	AXLETREE	1	
6-10	QMRG7056AA	HOLDER	2	
6-11	QWBG002AA	HOLDER	1	
7	QKUG1048ABZ	SP BOX REAR BOARD	1	
8	QKQGZ159ABZ	REAR PLANK ASS'Y	2	
8-1	QGKG0130AG	CORD COVER	1	
9	QYKG281AAZK	SP BOX	1	
10	QKQGB503BAZ	LEFT PLANK ASS'Y	1	
10-1	SHRG2130B-K	FOOT	3	
10-2	XTW3+16J	SCREW	6	
11	QKQGB504BAZ	RIGHT PLANK ASS'Y	1	
11-1	SHRG2130B-K	FOOT	3	
11-2	XTW3+16J	SCREW	6	
12	QKQGM095ABZ	PEDAL BOX ASS'Y	1	
12-1	QGKG0113AA	ORNAMENT	3	
13	QKAG0008AA	THUMB SCREW	2	
14	QMBG009AA	SPRING	3	
15	QMFG1133AA	FELT	3	
16	QMFG1134AA	FELT	3	
17	QMWG4002AA	PEDAL ARM	3	
18	QMFG1135AA	FELT	3	
19	QHDG032AB	SCREW WITH WASHER	8	
20	XTB3+10AFZ	SCREW	1	
21	XTS3+12AFZ	SCREW	6	
22	XTS3+10AFZ	SCREW	4	
23	XTT4+10A	SCREW	8	
24	XTB4+10B	SCREW	2	
25	XTT4+12AFZ	SCREW	1	
26	XTT4+14A	SCREW	2	
27	XYN4+F16FZ	SCREW	3	
28	QHDG016AB	SCREW WITH WASHER	12	
29	SNE499-1	SCREW	8	
30	XTT4+12A	SCREW	8	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
31	QHDG004AA	SCREW	2	
32	XTT4+25AFZ	SCREW	10	
33	XYN4+F20FZ	SCREW	2	
34	XYE3+FG12	SCREW	4	
35	QMRG1029AA	CORD CLAMPER	1	
36	QGUG1202BC	BUTTON	1	
37	QGUG1205BC	BUTTON	1	
38	QGUG1201CC	BUTTON	1	
39	QGUG1204CC	BUTTON	1	
40	QGUG1207BC	BUTTON	1	
41	QGUG1463AB	BUTTON	1	
42	QGUG1202CB	BUTTON	1	
43	QGUG1440AB1K	BUTTON	1	
44	QMRG5234AA	CUSHION	1	
45	QGUG1462AB	BUTTON	1	
46	QGUG1461AB	BUTTON	1	
47	QGUG1468AA	BUTTON	1	
48	QGUG1465AB	BUTTON	1	
49	QMRG5233AA	CUSHION	2	
50	QGUG1471AA	BUTTON	2	
51	QGUG1466AA	BUTTON	1	
52	QGUG1459AB	BUTTON	1	
53	QGUG1201BC	BUTTON	1	
54	QGUG1460AA	BUTTON	1	
55	QGUG1467AA	BUTTON	1	
56	QGUG1204BC	BUTTON	1	
57	QGUG1216AC	BUTTON	1	
58	QGUG1203BB	BUTTON	3	
59	QGUG1203DB	BUTTON	1	
60	QGUG1206BC	BUTTON	2	
61	QGUG1203CB	BUTTON	2	
62	QGUG1464AB	BUTTON	1	
63	QGUG1212AC	BUTTON	1	
64	QGPG0133BE	CONTROL PANEL	1	EXCEPT P
64	QGPG0133BF	CONTROL PANEL	1	P ONLY
65	QMFG1140AA	FELT	1	
66	QGKG0096AD	AC IN PANEL	1	P PC EX EZ EB EG EF GN
66	QGKG0096BC	AC IN PANEL	1	X XA XD XT XS
67	K2A2G000003	AC IN SOKET	1	EXCEPT P PC
67	SJS9334A	AC IN SOKET	1	P PC ONLY
68	QMRG7029AC	BRACKET	1	
69	QMRG7028AC	BRACKET	1	
70	QGKG0076FB	JACK GRILL	1	
71	SBNG4010A	VOLUME KNOB	1	
72	QKAG0012AA	FOOT	2	
73	QMRG7086AA	LID GUIDE	2	
74	QMBG023AA	SPRING	1	
75	QKSGG028CA	GUIDE	1	
76	QKSGG029CA	GUIDE	1	
77	QAUG027AA	DISK DRIVE UNIT	1	
78	QMFG1220AA	FELT	1	
79	QEXGRA01007H	WIRE	1	
80	QMGG029AA	FLOATING RUBBER	4	
81	QMFG4222AA	CUSHION	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
82	SBNG7050A	KNOB	2	
83	QGUG3002BB	DIAL WHEEL	1	
84	QKWG033AB	LCD PANEL	1	
85	QLZG017A	CORE	9	
86	QLZG021A	CORE	4	
87	QTPG1N025A	POWER TRANSFORMER	1	⚠ EXCEPT P PC
87	QTPG1N026A	POWER TRANSFORMER	1	⚠ P PC ONLY
88	EDMMR63B0F	LCD	1	
89	QQLG174AA	HP MIC LABEL	1	
90	QYKG278AAZ	CABINET ASS'Y	1	
91	QEXGRA01007K	EARTH WIRE	1	
92	QMFG4103AA	CUSHION	1	
93	QMRG1027AA	FUSE COVER	1	EXCEPT X XS XD XT
93	QMRG1027AA	FUSE COVER	3	X XS XD XT ONLY
94	XTWSG2	SCREW	8	
95	XTW3+10Q	SCREW	40	
96	XYN4+F16	SCREW	4	
97	XTT4+20A	SCREW	6	
98	XYA35+JA12	SCREW	37	
99	QHDG043AA	SCREW WITH WASHER	4	
100	XYN3+F6	SCREW	1	
101	XTW3+8J	SCREW	1	
102	QHDG021AA	SCREW	10	
103	XTV3+10C	SCREW	8	
104	XTB4+10C	SCREW	4	
105	QHWG007AA	NUT	2	
106	XTN4+50AFZ	SCREW	4	
107	XWG4G16	WASHER	1	
108	XTB35+20A	SCREW	2	
109	GTT4+35AFZ	SCREW	4	
110	XTB35+16A	SCREW	14	
111	QHDG053AA	SCREW WITH WASHER	4	
112	QJRG019AA	EARTH PLATE	3	
113	QEXGRA01080B	WIRE	1	
114	XNS12FZ	NUT	3	
115	XNS9	NUT	1	
116	SNEG2400A	SCREW	2	
120	XTW3+10T	SCREW	16	
121	QGUG1040AA	BUTTON POWER	1	
122	QGPG0139BB	END COVER PANEL LEFT	1	
123	QGPG0138BB	END COVER PANEL RIGHT	1	
124	QMFG1104AA	FELT	2	
125	QMWG1041AA	WHITE KEY(FIRST OCT A KEY	1	
126	QMWG1042AA	WHITE KEY(B KEY)	8	
127	QMWG1043AA	WHITE KEY(C KEY)	7	
128	QMWG1044AA	WHITE KEY(D KEY)	7	
129	QMWG1045AA	WHITE KEY(E KEY)	7	
130	QMWG1046AA	WHITE KEY(F KEY)	7	
131	QMWG1047AA	WHITE KEY(G KEY)	7	
132	QMWG1048AA	WHITE KEY(A KEY)	7	
133	QMWG1049AA	WHITE KEY(TOP OCTAVE C)	1	
134	QMWG2006AA	BLACK KEY	36	
135	QMCG011BA	SPRING	88	
136	QMWG9027AA	HAMMER(BLACK KEY)	8	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
137	QMWG9027AB	HAMMER(BLACK KEY)	14	
138	QMWG9027AC	HAMMER(BLACK KEY)	7	
139	QMWG9027AD	HAMMER(BLACK KEY)	7	
140	QMWG9025AA	HAMMER(WHITE KEY)	12	
141	QMWG9025AB	HAMMER(WHITE KEY)	19	
142	QMWG9025AC	HAMMER(WHITE KEY)	11	
143	QMWG9025AD	HAMMER(WHITE KEY)	10	
144	QMGG060AA	RUBBER CAP(HAMMER)	88	
145	QMWG8045AA	KEY GUIDE	88	
146	QMWG8041AA	FUL CU RUM(4 PCS ON ONE)	1	
147	QMWG8040AA	FUL CU RUM(12 PCS ON ONE)	7	
148	QMFG1267BA	FELT	2	
149	QMFG1268BA	FELT	2	
150	QMFG1266BA	FELT	4	
151	QMFG1265AA	FELT	2	
152	QMWG6020AA	RUBBER SWITCH	1	
153	QMWG6021AA	RUBBER SWITCH	7	
154	QMWG8038AA	HAMMER SUPPORT(WHITE KEY)	52	
155	QMWG8039AA	HAMMER SUPPORT(BLACK KEY)	36	
156	XTV3+20JFZ	SCREW	2	
157	XTV3+12G	SCREW	4	
A1	QQFGPR703AA	FAN BAG	1	P
A1	QQFGPR703BA	FAN BAG	1	PC
A1	QQFGPR703CA	FAN BAG	1	X XA EX EB XD XT XS GN
A1	QQFGPR703DA	FAN BAG	1	EZ
A1	QQFGPR703EA	FAN BAG	1	EF
A1	QQFGPR703FA	FAN BAG	1	EG
A2	QJAG025AA	AC CORD	1	⚠ P PC
A2	QJAG027AA	POWER CORD	1	⚠ X EX EZ EG EF XT XS
A2	QJAG028AA	AC CORD	1	⚠ EB XD
A2	QJAG029AA	AC CORD	1	⚠ GN
A2	QJAG031AA	AC CORD	1	⚠ XA
A3	QFVG2014A	FLOPPY DISK	1	
A4	SJP5213-2	PLUG ADAPTOR	1	⚠ X XT
C1	ECA0JM102	1000UF 6.3V	1	INVL
C1	ECEA0JKA221	220UF 6.3V	1	CPL
C1	ECKCVA1472MF	4700PF LINE CAPACITOR	1	⚠ ACP
C1	ECKF1E473X	0.1UF	1	MKB1
C1	ECQE1A104M6	0.1UF	1	⚠ AS
C1	ECRF1H104ZF	0.1UF	1	PKB
C1	ECRR1H104ZF	0.1UF	1	JACK
C1	ECUV1H104ZFX	0.1UF	1	MAIN
C1	QCBG1H104ZFA	0.1UF	1	CPR
C1	QCBG1H473ZFA	0.047UF	1	JACK2
C2	ECBT1C222MR5	2200PF	1	CPL
C2	ECBT1C222MR5	0.0022UF	1	CPR
C2	ECCR1H221J5	220PF	1	JACK
C2	ECOS1JP103EB	100000UF 63V	1	AS
C2	ECQB1H473JF3	0.047UF	1	INVL
C2	ECQU2A104MN	0.1UF	1	⚠ ACP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2	ECUV1C224KBX	0.22UF	1	MAIN
C2	QCBG1H473ZFA	0.047UF	1	JACK2
C3	ECCR1H101J	100PF	1	CPR
C3	ECCR1H221J5	220PF	1	JACK
C3	ECCW3F180JGE	18PF	1	INVL
C3	ECEA0JKS101	100UF 6.3V	1	CPL
C3	ECOS1JP103EB	100000UF 63V	1	AS
C3	ECUV1H104ZFX	0.1UF	1	MAIN
C3	QCBG1H104ZFA	0.1UF	1	JACK2
C4	ECEA0JKA331Q	330UF 6.3V	1	CPL
C4	ECEA0JKA331Q	330UF 6.3V	1	CPR
C4	ECEA1HKN010	1UF 50V	1	JACK2
C4	ECKR1E473ZV	0.047UF	1	JACK
C4	ECQV1J105JM	1UF	1	AS
C4	ECEA0JKA470	6.3V 47UF	1	MKB1
C4	ECUV1H104ZFX	0.1UF	1	MAIN
C5	ECBT1H102KB	0.001UF	1	CPL
C5	ECBT1H470J	47P	1	JACK2
C5	ECQV1J105JM	1UF	1	AS
C5	ECRF1H104ZF	0.1UF	1	MKB2
C5	ECRR1H104ZF	0.1UF	1	JACK
C5	ECUV1H104ZFX	0.1UF	1	MAIN
C6	ECBT1C222MR5	2200PF	1	JACK
C6	ECBT1H102KB	0.001UF	1	CPL
C6	ECEA1HKA010	1UF 50V	1	AS
C6	ECRF1H104ZF	0.1UF	1	MKB1
C6	ECUV1H104ZFX	0.1UF	1	MAIN
C6	QCBG1H104ZFA	0.1UF	1	JACK2
C7	ECA1CM101B	100UF 16V	1	AS
C7	ECBT1C222MR5	2200PF	1	JACK
C7	ECEA1HKN010	1UF 50V	1	JACK2
C7	ECUV1H104ZFX	0.1UF	1	MAIN
C7	QCBG1H104ZFA	0.1UF	1	CPL
C7	ECRF1H104ZF	0.1UF	1	MKB2
C8	ECEA0JKA470	47UF 16V	1	JACK2
C8	ECEA1HKA010	1UF 50V	1	AS
C8	ECRR1H104ZF	0.1UF	1	JACK
C8	ECUV1H104ZFX	0.1UF	1	MAIN
C8	QCBG1H104ZFA	0.1UF	1	CPL
C9	ECA1CM101B	100UF 16V	1	AS
C9	ECBT1C682MR5	0.0068UF	1	JACK2
C9	ECRR1H104ZF	0.1UF	1	JACK
C9	ECUV1H104ZFX	0.1UF	1	MAIN
C9	QCBG1H104ZFA	0.1UF	1	CPL
C9	QCBG1H104ZFA	0.1UF	1	CPR
C10	ECBT1C222MR5	2200PF	1	JACK
C10	ECUV1H104ZFX	0.1UF	1	MAIN
C10	QCBG1H104ZFA	0.1UF	1	CPL
C10	QCBG1H104ZFA	0.1UF	1	CPR
C11	ECBT1C222MR5	2200PF	1	JACK
C11	ECEA1CKA100	10UF 16V	1	AS
C11	ECEA1HKN010	1UF 50V	1	JACK2
C11	ECUV1H103KBG	0.01UF	1	MAIN
C10	QCBG1H104ZFA	0.1UF	1	JACK2

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C12	ECUV1H104ZFX	0.1UF	1	MAIN
C13	ECA1CM101B	100UF 16V	1	AS
C13	ECUV1H104ZFX	0.1UF	1	MAIN
C14	ECCR1H100D5	10PF	1	AS
C14	ECUV1H104ZFX	0.1UF	1	MAIN
C15	ECCR1H100D5	10PF	1	AS
C15	ECUV1H104ZFX	0.1UF	1	MAIN
C16	ECUV1H030CCN	3PF	1	MAIN
C16	QCBG1H104ZFA	0.1UF	1	AS
C17	ECQG1H472KZ	0.0047UF	1	AS
C17	ECUV1H104ZFX	0.1UF	1	MAIN
C18	ECQB1H153JF	0.015UF	1	AS
C18	ECUV1H030CCN	3PF	1	MAIN
C19	ECQG1H152KZ	0.0015UF	1	AS
C19	ECUV1H104ZFX	0.1UF	1	MAIN
C20	ECQB1H473JF3	0.047UF	1	AS
C20	ECUV1H104ZFX	0.1UF	1	MAIN
C21	ECQG1H222KZ	0.0022UF	1	AS
C21	ECUV1H104ZFX	0.1UF	1	MAIN
C22	ECQV1H154JM	0.15UF	1	AS
C22	ECUV1H104ZFX	0.1UF	1	MAIN
C23	ECQB1H333JF	0.033UF	1	AS
C24	ECUV1H104ZFX	0.1UF	1	MAIN
C25	ECUV1H102JX	0.001UF	1	MAIN
C26	ECQV1H684JM	0.68UF	1	AS
C27	ECQB1H473JF3	0.047UF	1	AS
C28	ECEA1HKN2R2	2.2UF 50V	1	AS
C28	ECUV1H221JG	220PF	1	MAIN
C29	ECQV1H334JM3	0.33UF	1	AS
C29	ECUV1H104ZFX	0.1UF	1	MAIN
C30	ECQG1H472KZ	0.0047UF	1	AS
C30	ECUV1H104ZFX	0.1UF	1	MAIN
C31	ECQB1H153JF	0.015UF	1	AS
C31	ECUV1H104ZFX	0.1UF	1	MAIN
C32	ECQG1H152KZ	0.0015UF	1	AS
C32	ECUV1H104ZFX	0.1UF	1	MAIN
C33	ECQB1H473JF3	0.047UF	1	AS
C33	ECUV1H104ZFX	0.1UF	1	MAIN
C34	ECQG1H222KZ	0.0022UF	1	AS
C34	ECUV1H104ZFX	0.1UF	1	MAIN
C35	ECQV1H154JM	0.15UF	1	AS
C35	ECUV1H104ZFX	0.1UF	1	MAIN
C36	ECQB1H333JF	0.033UF	1	AS
C36-38	ECUV1H104ZFX	0.1UF	3	MAIN
C39	ECQV1H684JM	0.68UF	1	AS
C39	ECUV1H104ZFX	0.1UF	1	MAIN
C40	ECQB1H473JF3	0.047UF	1	AS
C40	ECUV1H104ZFX	0.1UF	1	MAIN
C41	ECEA1HKN2R2	2.2UF 50V	1	AS
C42	ECQV1H334JM3	0.33UF	1	AS
C43	ECCR1H220J	22P	1	AS
C44	ECCR1H471J	470P	1	AS
C46	ECQG1H332KZ	0.0033UF	1	AS
C47	ECCR1H220J	22P	1	AS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C48	ECCR1H471J	470P	1	AS
C50	ECQG1H332KZ	0.0033UF	1	AS
C51 52	ECA1JHG221B	220PF 50V	2	AS
C53 54	ECQV1J105JM	1UF	2	AS
C57 58	ECQV1J105JM	1UF	2	AS
C59 60	ECEA50Y1R5K	1.5UF 50V	2	AS
C61 62	ECEA50Y47	47UF 50V	2	AS
C63 64	QCBG1H104ZFA	0.1UF	2	AS
C65 66	ECEA1HKN010	1UF 50V	2	AS
C67	ECQG1H472KZ	0.0047UF	1	AS
C101	ECBT1H151KB	150PF	1	ASUB
C101	ECUV1H104ZFX	0.1UF	1	MAIN
C102	ECBT1H681KB	680PF	1	ASUB
C102	ECEA0JKA101	100UF 6.3V	1	MAIN
C103	ECBT1H681KB	680PF	1	ASUB
C103	ECUV1H470JG	47PF	1	MAIN
C104	ECBT1H151KB	150PF	1	ASUB
C104	ECUV1H470JG	47PF	1	MAIN
C105	ECBT1H681KB	680PF	1	ASUB
C105	ECUV1H104ZFX	0.1UF	1	MAIN
C106	ECBT1H681KB	680PF	1	ASUB
C106 07	ECUV1H333KBX	0.033UF	2	MAIN
C108	ECUV1H103KBG	0.01UF	1	MAIN
C109	ECUV1H472KBG	4700PF	1	MAIN
C110	ECUV1H104ZFX	0.1UF	1	MAIN
C111	ECUV1H100DCN	10PF	1	MAIN
C112	ECUV1H182JX	1800PF	1	MAIN
C113	ECUV1H223KBX	0.022UF	1	MAIN
C114	ECUV1H100DCN	10PF	1	MAIN
C115 16	ECUV1H101JG	100PF	2	MAIN
C117 18	ECUV1H104ZFX	0.1UF	2	MAIN
C119	ECUV1H103KBG	0.01UF	1	MAIN
C120	ECEA1HKA010	1UF 50V	1	MAIN
C121	ECUV1H104ZFX	0.1UF	1	MAIN
C123	ECEA1HKA010	1UF 50V	1	MAIN
C124-27	ECUV1H104ZFX	0.1UF	4	MAIN
C129-32	ECUV1H104ZFX	0.1UF	4	MAIN
C201	ECUV1H104ZFX	0.1UF	1	MAIN
C202 03	ECUV1H100DCN	10PF	2	MAIN
C204-06	ECUV1H104ZFX	0.1UF	3	MAIN
C207	ECUV1H102JX	0.001UF	1	MAIN
C208	ECUV1H104ZFX	0.1UF	1	MAIN
C209	ECA0JM102	1000UF 6.3V	1	MAIN
C210	ECEA0JKA101	100U 6.3V	1	MAIN
C211 12	ECUV1H104ZFX	0.1U	2	MAIN
C213 14	ECUV1H471JG	470P	2	MAIN
C215	ECUV1H222KX	2200PF	1	MAIN
C216	ECUV1H682KBG	6800P	1	MAIN
C217-19	ECUV1H104ZFX	0.1UF	3	MAIN
C220 21	ECEA1CKA100	10UF 16V	2	MAIN
C222 23	ECUV1H104ZFX	0.1U	2	MAIN
C224	ECEA0JKA101	100UF 6.3V	1	MAIN
C225	ECEA1HKA010	1UF 50V	1	MAIN
C226	ECUV1H104ZFX	0.1UF	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C228	ECUV1H104ZFX	0.1UF	1	MAIN
C229	ECEA1HKA010	1UF 50V	1	MAIN
C230	ECEA1CKA100	10UF 16V	1	MAIN
C231-33	ECUV1H104ZFX	0.1UF	3	MAIN
C234	ECUV1C224KBX	0.22(B)	1	MAIN
C235	ECUV1H472KBG	0.0047	1	MAIN
C236 37	ECUV1H102JX	0.001UF	2	MAIN
C238	ECUV1H680JG	68PF	1	MAIN
C239 40	ECUV1H104ZFX	0.1UF	2	MAIN
C241	ECUV1H680JG	68PF	1	MAIN
C243	ECEA1VKA100	10UF 35V	1	MAIN
C244	ECRR1H104ZF	0.1UF	1	MAIN
C245	ECA0JM102	1000UF 6.3V	1	MAIN
C246 47	ECRR1H104ZF	0.1UF	2	MAIN
C248	ECA2AM220	22UF	1	MAIN
C249	ECQV1H104JM	0.1UF	1	MAIN
C250	ECUV1H222KX	2200PF	1	MAIN
C251	ECUV1H682KBG	6800P	1	MAIN
C252	ECEA1CKA100	10UF 16V	1	MAIN
C253 54	ECEA1HKN010	1UF 50V	2	MAIN
C255	ECA1JM220	22UF 6.3V	1	MAIN
C256 57	ECUV1H221JG	50V 220PF	2	MAIN
C258	EECS5R5V105	1F 5.5V	1	MAIN
C259-62	ECUV1H471JG	470PF	4	MAIN
C263	ERJ6GEY0R00V	0	1	MAIN
C264-66	ECRR1H104ZF	0.1UF	3	MAIN
C301	ECUV1H101JG	100PF	1	MAIN
C302 03	ECUV1H100DCN	10PF	2	MAIN
C304-19	ECUV1H104ZFX	0.1UF	16	MAIN
CN1	QJTG01005AA	CONNECTOR	1	JACK
CN1	SJPG12JS020A	CONNECTOR	1	⚠ACP
CN1	SJPG2JS040A	CONNECTOR	1	INVL
CN1	SJPG2JS050A	CONNECTOR	1	CPL
CN1	SJPG2JS060A	CONNECTOR	1	CPR
CN1	SJPG7JS030A	CONNECTOR	1	AS
CN2	QJTG00904BA	CONNECTOR	1	INVL
CN2	QJTG01007AA	CONNECTOR	1	JACK
CN2	QJTG01014AA	CONNECTOR	1	AS
CN2	SJPG12JS040A	CONNECTOR	1	ACP
CN2	SJPG2JS050A	CONNECTOR	1	CPL
CN2	SJPG2JS060A	CONNECTOR	1	JACK2
CN3	SJPG1JS160A	CONNECTOR	1	MKB1
CN3	QJTG01010AA	CONNECTOR	1	JACK
CN3	QJUG01712BA	CONNECTOR	1	INVL
CN3	SJPG1JS060A	CONNECTOR	1	AS
CN3	SJPG2JS040A	CONNECTOR	1	CPL
CN3	SJPG2JS050A	CONNECTOR	1	JACK2
CN4	QJUG00703AA	CONNECTOR	1	JACK2
CN4	SJPG1320A	CONNECTOR	1	AS
CN4	SJPG2JS120A	CONNECTOR	1	INVL
CN5	SJPG1310A	CONNECTOR	1	AS
CN6 N7	QJTG04309AA	CONNECTOR	2	AS
CN7	QEUGQ8H08BCZ	CONNECTOR	1	MKB2

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CN8 N9	QJUG05309AA	CONNECTOR	2	ASUB
CN101	SJPG1JS150	CONNECTOR	1	MAIN
CN102	SJPG1JS060	CONNECTOR	1	MAIN
CN103	SJPG1JS100A	CONNECTOR	1	MAIN
CN104	SJPG1JS120	CONNECTOR	1	MAIN
CN105	SJPG1JS070A	CONNECTOR	1	MAIN
CN106	SJPG1JS040	CONNECTOR	1	MAIN
CN107	QJUG05219AA	CONNECTOR	1	MAIN
CN108	SJPG1JS040	CONNECTOR	1	MAIN
CN201	SJPG1JS050AG	CONNECTOR	1	MAIN
CN202	SJPG1JS050	CONNECTOR	1	MAIN
CN203	QJUG00214A	CONNECTOR	1	MAIN
CN204	SJPG1JS050A	CONNECTOR	1	MAIN
CN301	SJPG1JS160	CONNECTOR	1	MAIN
D1	ERA1502V5	DIODE	1	AS
D1	MA111TX	DIODE	1	MAIN
D1	MA165	DIODE	1	MKB1
D1	MA165TA5	DIODE	1	CPR
D1	MA165TA5VT	DIODE	1	CPL
D1	MA165TA5VT	DIODE	1	JACK
D2	ERA1502V5	DIODE	1	AS
D2	MA111TX	DIODE	1	MAIN
D2	MA165	DIODE	1	MKB1
D2	MA165TA5	DIODE	1	CPR
D1	MA165TA5VT	DIODE	1	JACK2
D2	MA165TA5VT	DIODE	1	JACK
D2	MA165TA5VT	DIODE	1	CPL
D2	SEL4214RLC05	LED	1	JACK2
D3	MA111TX	DIODE	1	MAIN
D3	MA165	DIODE	1	MKB1
D3	MA165TA5	DIODE	1	CPR
D3	MA165TA5VT	DIODE	1	CPL
D3	MA165TA5VT	DIODE	1	JACK
D3	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D4	MA165	DIODE	1	MKB1
D4	MA165TA5	DIODE	1	CPR
D4	MA165TA5VT	DIODE	1	CPL
D4	MA165TA5VT	DIODE	1	JACK
D4	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D5	MA165	DIODE	1	MKB1
D5	MA165TA5	DIODE	1	CPR
D5	MA165TA5VT	DIODE	1	CPL
D5	MA165TA5VT	DIODE	1	JACK
D5	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D6	MA165	DIODE	1	MKB1
D6	MA165TA5	DIODE	1	CPR
D6	MA165TA5VT	DIODE	1	CPL
D6	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D7	MA165	DIODE	1	MKB1
D7	MA165TA5	DIODE	1	CPR
D7	MA165TA5VT	DIODE	1	CPL
D7	SVDGS3V20-15	RECTIFIER	1	⚠ AS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D8	MA165	DIODE	1	MKB1
D8	MA165TA5	DIODE	1	CPR
D8	MA165TA5VT	DIODE	1	CPL
D8	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D9	MA165	DIODE	1	MKB1
D9	MA165TA5	DIODE	1	CPR
D9	MA165TA5VT	DIODE	1	CPL
D9	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D10	MA165	DIODE	1	MKB1
D10	MA165TA5	DIODE	1	CPR
D10	MA165TA5VT	DIODE	1	CPL
D10	SVDGS3V20-15	RECTIFIER	1	⚠ AS
D11	ERA1502V5	DIODE	1	AS
D11	MA165	DIODE	1	MKB1
D11	MA165TA5	DIODE	1	CPR
D11	MA165TA5VT	DIODE	1	CPL
D12	MA165	DIODE	1	MKB1
D12	MA165TA5	DIODE	1	CPR
D12	MA165TA5VT	DIODE	1	CPL
D12	MA4160MTA	DIODE	1	AS
D13	MA165	DIODE	1	MKB1
D13	MA165TA5	DIODE	1	CPR
D13	MA165TA5VT	DIODE	1	CPL
D13	MA4160MTA	DIODE	1	AS
D14	MA165	DIODE	1	MKB1
D14	MA165TA5	DIODE	1	CPR
D14	MA165TA5VT	DIODE	1	CPL
D14	MA4180TA	ZENNER	1	AS
D15	MA165	DIODE	1	MKB1
D15	MA165TA5	DIODE	1	CPR
D15	MA165TA5VT	DIODE	1	CPL
D15	MA4180TA	ZENNER	1	AS
D16	MA165	DIODE	1	MKB1
D16	MA165TA5	DIODE	1	CPR
D16	MA165TA5VT	DIODE	1	CPL
D17	MA165	DIODE	1	MKB1
D17	MA165TA5	DIODE	1	CPR
D17	MA165TA5VT	DIODE	1	CPL
D18	MA165	DIODE	1	MKB1
D18	MA165TA5	DIODE	1	CPR
D18	MA165TA5VT	DIODE	1	CPL
D19	MA165	DIODE	1	MKB1
D19	MA165TA5	DIODE	1	CPR
D19	MA165TA5VT	DIODE	1	CPL
D20	EK04W	DIODE	1	AS
D20	MA165	DIODE	1	MKB1
D20	MA165TA5	DIODE	1	CPR
D20	MA165TA5VT	DIODE	1	CPL
D21	MA165	DIODE	1	MKB1
D21	MA165TA5	DIODE	1	AS
D21	MA165TA5	DIODE	1	CPR
D21	MA165TA5VT	DIODE	1	CPL
D22	EK04W	DIODE	1	AS

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D22	MA165	DIODE	1	MKB1
D22	MA165TA5	DIODE	1	CPR
D22	MA165TA5VT	DIODE	1	CPL
D23	MA165	DIODE	1	MKB1
D23	MA165TA5	DIODE	1	AS
D23	MA165TA5	DIODE	1	CPR
D23	MA165TA5VT	DIODE	1	CPL
D24	MA165	DIODE	1	MKB1
D24	MA165TA5	DIODE	1	AS
D24	MA165TA5	DIODE	1	CPR
D24	MA165TA5VT	DIODE	1	CPL
D25	MA165	DIODE	1	MKB1
D25	MA165TA5	DIODE	1	CPR
D25	MA165TA5VT	DIODE	1	CPL
D25	MA4240MTA	ZENNER	1	AS
D26	MA165	DIODE	1	MKB1
D26	MA165TA5	DIODE	1	CPR
D26	MA165TA5VT	DIODE	1	CPL
D26	MA4240MTA	ZENNER	1	AS
D27	MA165	DIODE	1	MKB1
D27	MA165TA5	DIODE	1	CPR
D27	MA165TA5VT	DIODE	1	CPL
D28	MA165	DIODE	1	MKB1
D28	MA165TA5	DIODE	1	CPR
D28	MA165TA5VT	DIODE	1	CPL
D29	MA165	DIODE	1	MKB1
D29	MA165TA5	DIODE	1	CPR
D29	MA165TA5VT	DIODE	1	CPL
D30	MA165	DIODE	1	MKB1
D30	MA165TA5	DIODE	1	CPR
D30	MA165TA5VT	DIODE	1	CPL
D31	MA165	DIODE	1	MKB1
D31	MA165TA5	DIODE	1	CPR
D31	MA165TA5VT	DIODE	1	CPL
D32	MA165	DIODE	1	MKB1
D32	MA165TA5	DIODE	1	CPR
D32	MA165TA5VT	DIODE	1	CPL
D33	MA165	DIODE	1	MKB1
D33	MA165TA5	DIODE	1	CPR
D33	MA165TA5VT	DIODE	1	CPL
D34	MA165	DIODE	1	MKB1
D34	MA165TA5	DIODE	1	CPR
D34	MA165TA5VT	DIODE	1	CPL
D35	MA165	DIODE	1	MKB1
D35	MA165TA5	DIODE	1	CPR
D35	MA165TA5VT	DIODE	1	CPL
D36	MA165	DIODE	1	MKB1
D36	MA165TA5	DIODE	1	CPR
D36	MA165TA5VT	DIODE	1	CPL
D37	MA165	DIODE	1	MKB1
D37	MA165TA5	DIODE	1	CPR
D37	MA165TA5VT	DIODE	1	CPL
D38	MA165	DIODE	1	MKB1
D38	MA165TA5	DIODE	1	CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D38	MA165TA5VT	DIODE	1	CPL
D39	MA165	DIODE	1	MKB1
D39	MA165TA5	DIODE	1	CPR
D39	MA165TA5VT	DIODE	1	CPL
D40	MA165	DIODE	1	MKB1
D40	MA165TA5	DIODE	1	CPR
D40	MA165TA5VT	DIODE	1	CPL
D41	MA165	DIODE	1	MKB1
D41	MA165TA5	DIODE	1	CPR
D41	MA165TA5VT	DIODE	1	CPL
D42	MA165	DIODE	1	MKB1
D42	MA165TA5	DIODE	1	CPR
D42	MA165TA5VT	DIODE	1	CPL
D43	MA165	DIODE	1	MKB1
D43	MA165TA5	DIODE	1	CPR
D43	MA165TA5VT	DIODE	1	CPL
D44	MA165	DIODE	1	MKB1
D44	MA165TA5	DIODE	1	CPR
D44	MA165TA5VT	DIODE	1	CPL
D45	MA165	DIODE	1	MKB1
D45	MA165TA5	DIODE	1	CPR
D45	MA165TA5VT	DIODE	1	CPL
D46	MA165	DIODE	1	MKB1
D46	MA165TA5	DIODE	1	CPR
D46	MA165TA5VT	DIODE	1	CPL
D47	MA165	DIODE	1	MKB1
D47	MA165TA5	DIODE	1	CPR
D47	MA165TA5VT	DIODE	1	CPL
D48	MA165	DIODE	1	MKB1
D48	MA165TA5	DIODE	1	CPR
D48	MA165TA5VT	DIODE	1	CPL
D49	MA165	DIODE	1	MKB1
D49	MA165TA5	DIODE	1	CPR
D49	MA165TA5VT	DIODE	1	CPL
D50	MA165	DIODE	1	MKB1
D50	MA165TA5	DIODE	1	CPR
D50	MA165TA5VT	DIODE	1	CPL
D51	MA165	DIODE	1	MKB1
D51	MA165TA5	DIODE	1	CPR
D51	MA165TA5VT	DIODE	1	CPL
D52	MA165	DIODE	1	MKB1
D52	MA165TA5	DIODE	1	CPR
D52	MA165TA5VT	DIODE	1	CPL
D53	MA165	DIODE	1	MKB1
D53	MA165TA5	DIODE	1	CPR
D53	MA165TA5VT	DIODE	1	CPL
D54	MA165	DIODE	1	MKB1
D54	MA165TA5	DIODE	1	CPR
D54	MA165TA5VT	DIODE	1	CPL
D55	MA165	DIODE	1	MKB1
D55	MA165TA5	DIODE	1	CPR
D55	MA165TA5VT	DIODE	1	CPL
D56	MA165	DIODE	1	MKB1
D56	MA165TA5	DIODE	1	CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D56	MA165TA5VT	DIODE	1	CPL
D57	MA165	DIODE	1	MKB1
D57	MA165TA5	DIODE	1	CPR
D57	MA165TA5VT	DIODE	1	CPL
D58	MA165	DIODE	1	MKB1
D58	MA165TA5	DIODE	1	CPR
D58	MA165TA5VT	DIODE	1	CPL
D59	MA165	DIODE	1	MKB1
D59	MA165TA5	DIODE	1	CPR
D59	MA165TA5VT	DIODE	1	CPL
D60	MA165	DIODE	1	MKB1
D60	MA165TA5	DIODE	1	CPR
D60	MA165TA5VT	DIODE	1	CPL
D61	MA165	DIODE	1	MKB1
D61	MA165TA5	DIODE	1	CPR
D61	MA165TA5VT	DIODE	1	CPL
D62	LN282RPXVTX3	LED(RED)	1	CPL
D62	MA165	DIODE	1	MKB1
D62	MA165TA5	DIODE	1	CPR
D63	LN282RPXVTX3	LED(RED)	1	CPL
D63	MA165	DIODE	1	MKB1
D63	MA165TA5	DIODE	1	CPR
D64	LN282RPXVTX3	LED(RED)	1	CPL
D64	MA165	DIODE	1	MKB1
D64	MA165TA5	DIODE	1	CPR
D65	LN382GPXVTX3	LED(GREEN)	1	CPL
D65	MA165	DIODE	1	MKB1
D65	MA165TA5	DIODE	1	CPR
D66	LN382GPXVTX3	LED(GREEN)	1	CPL
D66	MA165	DIODE	1	MKB1
D66	MA165TA5	DIODE	1	CPR
D67	LN382GPXVTX3	LED(GREEN)	1	CPL
D67	MA165	DIODE	1	MKB1
D67	MA165TA5	DIODE	1	CPR
D68	LN282RPXVTX3	LED(RED)	1	CPL
D68	MA165	DIODE	1	MKB1
D68	MA165TA5	DIODE	1	CPR
D69	LN282RPXVTX3	LED(RED)	1	CPL
D69	MA165	DIODE	1	MKB1
D69	MA165TA5	DIODE	1	CPR
D70	LN382GPXVTX3	LED(GREEN)	1	CPL
D70	MA165	DIODE	1	MKB1
D70	MA165TA5	DIODE	1	CPR
D71	LN282RPXVTX3	LED(RED)	1	CPL
D71	LN282RPXVTX3	LED(RED)	1	CPR
D71	MA165	DIODE	1	MKB1
D72	LN282RPXVTX3	LED(RED)	1	CPL
D72	LN282RPXVTX3	LED(RED)	1	CPR
D72	MA165	DIODE	1	MKB1
D73	LN282RPXVTX3	LED(RED)	1	CPL
D73	LN282RPXVTX3	LED(RED)	1	CPR
D73	MA165	DIODE	1	MKB1
D74	LN282RPXVTX3	LED(RED)	1	CPL
D74	LN282RPXVTX3	LED(RED)	1	CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D74	MA165	DIODE	1	MKB1
D75	LN282RPXVTX3	LED(RED)	1	CPL
D75	LN282RPXVTX3	LED(RED)	1	CPR
D75	MA165	DIODE	1	MKB1
D76	LN282RPXVTX3	LED(RED)	1	CPL
D76	LN282RPXVTX3	LED(RED)	1	CPR
D76	MA165	DIODE	1	MKB1
D77	LN282RPXVTX3	LED(RED)	1	CPL
D77	LN282RPXVTX3	LED(RED)	1	CPR
D77	MA165	DIODE	1	MKB1
D78	LN282RPXVTX3	LED(RED)	1	CPL
D78	LN282RPXVTX3	LED(RED)	1	CPR
D78	MA165	DIODE	1	MKB1
D79	LN282RPXVTX3	LED(RED)	1	CPL
D79	LN282RPXVTX3	LED(RED)	1	CPR
D79	MA165	DIODE	1	MKB1
D80	LN282RPXVTX3	LED(RED)	1	CPL
D80	LN282RPXVTX3	LED(RED)	1	CPR
D80	MA165	DIODE	1	MKB1
D81	LN282RPXVTX3	LED(RED)	1	CPL
D81	LN282RPXVTX3	LED(RED)	1	CPR
D81	MA165	DIODE	1	MKB1
D82	LN282RPXVTX3	LED(RED)	1	CPL
D82	LN382GPXVTX3	LED(GREEN)	1	CPR
D82	MA165	DIODE	1	MKB1
D83	LN282RPXVTX3	LED(RED)	1	CPL
D83	LN282RPXVTX3	LED(RED)	1	CPR
D83	MA165	DIODE	1	MKB1
D84	LN282RPXVTX3	LED(RED)	1	CPL
D84	LN282RPXVTX3	LED(RED)	1	CPR
D84	MA165	DIODE	1	MKB1
D85	LN282RPXVTX3	LED(RED)	1	CPR
D85	LN382GPXVTX3	LED(GREEN)	1	CPL
D85	MA165	DIODE	1	MKB1
D86	LN282RPXVTX3	LED(RED)	1	CPL
D86	LN282RPXVTX3	LED(RED)	1	CPR
D86	MA165	DIODE	1	MKB1
D87	LN282RPXVTX3	LED(RED)	1	CPL
D87	LN282RPXVTX3	LED(RED)	1	CPR
D87	MA165	DIODE	1	MKB1
D88	LN382GPXVTX3	LED(GREEN)	1	CPL
D88	LN382GPXVTX3	LED(GREEN)	1	CPR
D88	MA165	DIODE	1	MKB1
D89	LN382GPXVTX3	LED(GREEN)	1	CPL
D89	LN382GPXVTX3	LED(GREEN)	1	CPR
D89	MA165	DIODE	1	MKB2
D90	LN282RPXVTX3	LED(RED)	1	CPL
D90	MA165	DIODE	1	MKB2
D91	LN382GPXVTX3	LED(GREEN)	1	CPL
D91	LN382GPXVTX3	LED(GREEN)	1	CPR
D91	MA165	DIODE	1	MKB2
D92	LN382GPXVTX3	LED(GREEN)	1	CPL
D92	MA165	DIODE	1	MKB2
D93	LN382GPXVTX3	LED(GREEN)	1	CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D93	LN382GPXVTX3	LED(GREEN)	1	CPR
D93	MA165	DIODE	1	MKB2
D94	LN282RPXVTX3	LED(RED)	1	CPL
D94	LN282RPXVTX3	LED(RED)	1	CPR
D94	MA165	DIODE	1	MKB2
D95	LN282RPXVTX3	LED(RED)	1	CPL
D95	LN282RPXVTX3	LED(RED)	1	CPR
D95	MA165	DIODE	1	MKB2
D96	LN282RPXVTX3	LED(RED)	1	CPL
D96	LN282RPXVTX3	LED(RED)	1	CPR
D96	MA165	DIODE	1	MKB2
D97	LN282RPXVTX3	LED(RED)	1	CPL
D97	LN282RPXVTX3	LED(RED)	1	CPR
D97	MA165	DIODE	1	MKB2
D98	LN282RPXVTX3	LED(RED)	1	CPL
D98	LN282RPXVTX3	LED(RED)	1	CPR
D98	MA165	DIODE	1	MKB2
D99	LN282RPXVTX3	LED(RED)	1	CPL
D99	LN282RPXVTX3	LED(RED)	1	CPR
D99	MA165	DIODE	1	MKB2
D100	LN282RPXVTX3	LED(RED)	1	CPR
D100	LN382GPXVTX3	LED(GREEN)	1	CPL
D100	MA165	DIODE	1	MKB2
D101	LN282RPXVTX3	LED(RED)	1	CPR
D101	LN382GPXVTX3	LED(GREEN)	1	CPL
D101	MA152WK	DIODE	1	MAIN
D101	MA165	DIODE	1	MKB2
D101	MA165TA5VT	DIODE	1	ASUB
D102	LN282RPXVTX3	LED(RED)	1	CPR
D102	MA152WK	DIODE	1	MAIN
D102	MA165	DIODE	1	MKB2
D102	MA165TA5VT	DIODE	1	ASUB
D103	LN282RPXVTX3	LED(RED)	1	CPR
D103	MA152W	DIODE	1	MAIN
D103	MA165	DIODE	1	MKB2
D104	LN282RPXVTX3	LED(RED)	1	CPR
D104	MA152W	DIODE	1	MAIN
D104	MA165	DIODE	1	MKB2
D105	LN282RPXVTX3	LED(RED)	1	CPR
D105	MA111TX	DIODE	1	MAIN
D105	MA165	DIODE	1	MKB2
D106	LN382GPXVTX3	LED(GREEN)	1	CPR
D106	MA111TX	DIODE	1	MAIN
D106	MA165	DIODE	1	MKB2
D107	LN382GPXVTX3	LED(GREEN)	1	CPR
D107	MA165	DIODE	1	MKB2
D107	MA165TA5VT	DIODE	1	ASUB
D108	LN382GPXVTX3	LED(GREEN)	1	CPR
D108	MA165	DIODE	1	MKB2
D108	MA165TA5VT	DIODE	1	ASUB
D109	LN382GPXVTX3	LED(GREEN)	1	CPR
D109	MA165	DIODE	1	MKB2
D110	LN382GPXVTX3	LED(GREEN)	1	CPR
D110	MA165	DIODE	1	MKB2

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D111	LN382GPXVTX3	LED(GREEN)	1	CPR
D111	MA165	DIODE	1	MKB2
D112	LN382GPXVTX3	LED(GREEN)	1	CPR
D112	MA165	DIODE	1	MKB2
D113	LN382GPXVTX3	LED(GREEN)	1	CPR
D113	MA165	DIODE	1	MKB2
D114	LN382GPXVTX3	LED(GREEN)	1	CPR
D114	MA165	DIODE	1	MKB2
D115	LN282RPXVTX3	LED(RED)	1	CPR
D115	MA165	DIODE	1	MKB2
D116	LN282RPXVTX3	LED(RED)	1	CPR
D116	MA165	DIODE	1	MKB2
D117	LN282RPXVTX3	LED(RED)	1	CPR
D117	MA165	DIODE	1	MKB2
D118	LN282RPXVTX3	LED(RED)	1	CPR
D118	MA165	DIODE	1	MKB2
D119	LN282RPXVTX3	LED(RED)	1	CPR
D119	MA165	DIODE	1	MKB2
D120	LN282RPXVTX3	LED(RED)	1	CPR
D120	MA165	DIODE	1	MKB2
D121	LN282RPXVTX3	LED(RED)	1	CPR
D121-54	MA165	DIODE	34	MAIN
D156-65	MA165	DIODE	10	MAIN
D167-76	MA165	DIODE	10	MAIN
D201	MA2051LF	ZENER	1	MAIN
D202	MA2QD0100L	DIODE	1	MAIN
D203-05	MA111TX	DIODE	3	MAIN
D206	MA8033H	ZENER	1	MAIN
D207	MA1062MTR	ZENER	1	MAIN
D208	MA8056	ZENER	1	MAIN
D209	MA2062LF	ZENER	1	MAIN
D210	MA1240L	ZENER	1	MAIN
D211	MA1270	ZENER	1	MAIN
D212	MA2QD0100L	DIODE	1	MAIN
D213 14	ERA1502V5	DIODE	2	MAIN
D215-17	MA111TX	DIODE	3	MAIN
D218	MA8051L	ZENER	1	MAIN
D219	MA111TX	DIODE	1	MAIN
D220 21	MA152WK	DIODE	2	MAIN
D301 02	MA121TX	DIODE	2	MAIN
D303	MA159A	DIODE	1	MAIN
F1	XBA1C63NU100	6.3A 125V	1	⚠ACP(P PC ONLY)
F1	XBA2C40TB0	T4A 250V	1	⚠ACP(X XA XD XT XS ONLY)
F2 F3	XBA2C20TB0	T2A 125V	2	⚠ACP(EXCEPT P PC)
IC1	M37471M2196S	8BIT MICRO COMPUTER	1	CPL
IC1	M37471M2196S	MICRO COMPUTER	1	CPR
IC1	M5218AL	OPAMP	1	AS
IC1	M5218AL	OPAMP	1	JACK2
IC1	SVIGTLP513	PHOTO COUPLER	1	JACK
IC1	TC74VHC138F	3 TO 8 DECORDER	1	MAIN
IC1	HD74LS138P	DECODER	1	MKB1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC2	HD74LS138P	DECODER	1	MKB2
IC2	HD74LS07P	HEX BUFFER	1	CPL
IC2	HD74LS07P	TTL	1	CPR
IC2	M5218AL	OPAMP	1	AS
IC2	MN103002A	32 BIT MICRO COMPUTER	1	MAIN
IC3	HD74LS138P	DECODER	1	MKB2
IC3	HD74LS07P	HEX BUFFER	1	CPL
IC3	HD74LS07P	TTL	1	CPR
IC3	M5218AL	OPAMP	1	AS
IC3	TC7SU04FT85L	INVERTER	1	MAIN
IC4	D74HC138P	DECODER	1	MKB2
IC4	IMIFS781BZBD	CLOCK GENERATOR	1	MAIN
IC4 C5	M5218AL	OPAMP	2	AS
IC5	T7SZ32FUT85L	INPUT OR GATE	1	MAIN
IC6	M5218AL	OPAMP	1	AS
IC6	TC74VHC08F	LOGIC IC	1	MAIN
IC7	M5218AL	OPAMP	1	AS
IC7	TC7SH08FU	LOGIC IC	1	MAIN
IC8	K16V1204CTL6	DRAM16M	1	MAIN
IC8	M5218AL	OPAMP	1	AS
IC9	SVIGM5238L	OPAMP	1	AS
IC11	M29LV160B8TN	PROGRAMED FLASH MEMORY	1	MAIN
IC12	QSIGX3C64016	16BIT MASK-PRG	1	MAIN
IC14	BR93LC56RFE2	EEPROM	1	MAIN
IC15	K16V1204CTL6	DRAM16M	1	MAIN
IC16 17	T74VHCT374AF	D TYPE FF	2	MAIN
IC18	TC7W32FU	2 INPUT OR GATE	1	MAIN
IC19	TC74VHC139F	2 TO 4 DECORDER	1	MAIN
IC101	D72070GF3BE	MICRO CONTROLER	1	MAIN
IC102	TC7WT241FU	DUAL 3 STATE BUFFER	1	MAIN
IC103	TC7S14FT85L	SCHMIT TRIGGER INVERTER	1	MAIN
IC104	TC7WT241FU	DUAL 3 STATE BUFFER	1	MAIN
IC105	TC7SU04FT85L	INVERTER	1	MAIN
IC106	TC74LCX245F	BUS TRANSCEIVER	1	MAIN
IC107	TC7SH08FU	2 INPUT AND GATE	1	MAIN
IC108	T7SET04FT85L	BUS TRANSCEIVER	1	MAIN
IC109	M5M34051FPE2	BUS TRANSCEIVER	1	MAIN
IC110	T74VHCT541AF	CMOS	1	MAIN
IC111	M66273FP	LCDC	1	MAIN
IC112	T74LCX16244A	CMOS	1	MAIN
IC201	M51V18165D70	DRAM16M-EDO	1	MAIN
IC202	TC7SU04FT85L	INVERTER	1	MAIN
IC203	TMS57070FFT	DSP	1	MAIN
IC204	PCM1734EA-E2	DAC	1	MAIN
IC205	PCM1800E-T1	ADC	1	MAIN
IC206	M5218AFPE3	OP AMP	1	MAIN
IC207	BA10393F-E2	COMPERATIR	1	MAIN
IC208	M5218AFPE3	OP AMP	1	MAIN
IC209	MN1382CTX	RESET-IC	1	MAIN
IC301	D82398GD001	TONE GENERATOR IC	1	MAIN
IC302 03	T7SZ32FUT85L	2 INPUT OR GATE	2	MAIN
IC304	QSIGX3C64014	MASK-ROM	1	MAIN
IC305	QSIGX3C64013	MASK-ROM	1	MAIN
IC306	QSIGX3C64012	MASK-ROM	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC307	QSIGX3C64011	MASK-ROM	1	MAIN
IP3 P4	ICP-N75T104	IC PROTECTOR	2	⚠ AS
IP5 P6	ICP-N10T104	IC PROTECTOR	2	⚠ AS
IP7 P8	ICP-N75T104	IC PROTECTOR	2	⚠ AS
IP101 02	ICP-N10T104	IC PROTECTOR	2	⚠ MAIN
JK1	QJJG010AA	JACK HEADPHONE 1	1	JACK2
JK1	QJSG007AA	PEDAL IN	1	JACK
JK1	SJVD0203B	AC INLET	1	⚠ ACP
JK2	QJJG010AA	JACK HEADPHONE 2	1	JACK2
JK2	QJSG018AA	COMPUTER	1	JACK
JK3	QJJG011AA	JKMIC	1	JACK2
JK3-K5	QJSG016AA	MIDI THRU	3	JACK
JK6-K9	QJJG003AA	LINE OUT L	4	JACK
JP1	ERJ6GEY0R00V	CHIP JUMPER	1	MAIN
JP4 P6	ERJ6GEY0R00V	CHIP JUMPER	2	MAIN
JP202	ERJ6GEY0R00V	CHIP JUMPER	1	MAIN
JP301 02	ERJ6GEY0R00V	CHIP JUMPER	2	MAIN
L1	QLBG005A	COIL	1	AS
L1	QLBG005A	COIL	1	MAIN
L1	QLQGT2T100SA	10UH × 2	1	⚠ ACP
L1	QLQGT3T131TA	130UH × 3	1	JACK2
L2	QLBG005A	COIL	1	AS
L2	QLBG005A	COIL	1	MAIN
L2	QLQGT3T131TA	130UH × 3	1	JACK2
L3	QLBG005A	COIL	1	AS
L4	QLBG005A	COIL	1	AS
L5	QLQGT3T131TA	COIL	1	AS
L5	QLQGT3T131TA	130UH × 3	1	JACK
L6	QLQGT1B800MA	80UH	1	⚠ AS
L6	QLQGT3T131TA	130UH × 3	1	JACK
L7	QLQGT1D600MA	COIL	1	AS
L7	QLQGT3T131TA	130UH × 3	1	JACK
L8	QLQGT1D600MA	COIL	1	AS
L8 L9	QLQGT3T131TA	130UH × 3	2	JACK
L10-13	QLQGT1B100MA	10UH	4	JACK
L14	QLQGT1B800MA	80UH	1	JACK
L21	QLBG005A	COIL	1	JACK
L101	QLBG005A	COIL	1	MAIN
L201	QLQGT1T121LA	COIL	1	MAIN
L202	QLBG005A	COIL	1	MAIN
L203	QLQGT1T121LA	COIL	1	MAIN
L204	QLBG005A	COIL	1	MAIN
P1	QPGG0420AB	PACKING CASE	1	
PCB1	SXPG235131	MAIN P.C.B.	1	
PCB2	SXPG229731B	JACK2 P.C.B.	1	
PCB3	SXPG229871A	AS P.C.B.	1	
PCB4	SXPG229821B	ASUB P.C.B.	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
PCB5	SXPG229621A	CPL P.C.B.	1	
PCB6	SXPG229751A	CPR P.C.B.	1	
PCB7	SXPG229611C	INVL P.C.B.	1	
PCB8	SXPG229911	JACK P.C.B.	1	
PCB9	SXPG218211	PKB P.C.B.	1	
PCB10	SXPG231111A	MKB1 P.C.B.	1	
PCB11	SXPG231111B	MKB2 P.C.B.	1	
PCB12	SXPG230511	ACP P.C.B.	1	
PCB12	SXPG230521	ACP P.C.B.	1	
PCB12	SXPG230561	ACP P.C.B.	1	
Q1	2SA830STPB	TRANSISTOR	1	CPR
Q1	2SA830STPB	TRANSISTOR	1	CPL
Q1	2SA933STRS	TRANSISTOR	1	JACK
Q1	2SB709AR	TRANSISTOR	1	MAIN
Q1	2SC1815TPE2	TRANSISTOR	1	AS
Q1	2SC1815TPE2	TRANSISTOR	1	JACK2
Q1	2SD592ARS	TRANSISTOR	1	INVL
Q2	2SA830STPB	TRANSISTOR	1	CPR
Q2	2SA830STPB	TRANSISTOR	1	CPL
Q2	2SA933STRS	TRANSISTOR	1	JACK
Q2	2SD2374A-P	TRANSISTOR	1	AS
Q2	2SD592ARS	TRANSISTOR	1	INVL
Q2	2SD601AQ	TRANSISTOR	1	MAIN
Q3	2SA1015TPE2	TRANSISTOR	1	AS
Q3	2SA830STPB	TRANSISTOR	1	CPR
Q3 Q4	2SA830STPB	TRANSISTOR	2	CPR
Q4	2SA830STPB	TRANSISTOR	1	CPL
Q4	2SB1548A-P	TRANSISTOR	1	AS
Q5	2SA830STPB	TRANSISTOR	1	CPR
Q5	2SA830STPB	TRANSISTOR	1	CPL
Q9	2SC1815TPE2	TRANSISTOR	1	AS
Q10 11	2SA1015TPE2	TRANSISTOR	2	AS
Q12	2SD592ARS	TRANSISTOR	1	AS
Q13	2SB621ARS	TRANSISTOR	1	AS
Q14	2SD592ARS	TRANSISTOR	1	AS
Q15	2SB621ARS	TRANSISTOR	1	AS
Q16	FX30KMJ-3	FET	1	⚠ AS
Q17	FS30KMJ-3	FET	1	⚠ AS
Q18	FX30KMJ-3	FET	1	⚠ AS
Q19	FS30KMJ-3	FET	1	⚠ AS
Q20-24	2SC1815TPE2	TRANSISTOR	5	AS
Q25	2SA1015TPE2	TRANSISTOR	1	AS
Q26-28	2SC1815TPE2	TRANSISTOR	3	AS
Q29	2SA1015TPE2	TRANSISTOR	1	AS
Q101	2SA1015TPE2	TRANSISTOR	1	ASUB
Q101	UN511NTX	TRANSISTOR	1	MAIN
Q102	2SC1815TPE2	TRANSISTOR	1	ASUB
Q102	UN511NTX	TRANSISTOR	1	MAIN
Q103	2SA1015TPE2	TRANSISTOR	1	ASUB
Q103	UN5216TX	TRANSISTOR	1	MAIN
Q104	2SA1015TPE2	TRANSISTOR	1	ASUB
Q104	2SD601AQ	TRANSISTOR	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q105	2SA970GTPE2	TRANSISTOR	1	ASUB
Q105	2SD601AQ	TRANSISTOR	1	MAIN
Q106	2SC2240GTPE2	TRANSISTOR	1	ASUB
Q107	2SC1815TPE2	TRANSISTOR	1	ASUB
Q108	2SA1015TPE2	TRANSISTOR	1	ASUB
Q109	2SA1285FTA	TRANSISTOR	1	ASUB
Q110	2SC3245FTA	TRANSISTOR	1	ASUB
Q111	2SA1015TPE2	TRANSISTOR	1	ASUB
Q112	2SC1815TPE2	TRANSISTOR	1	ASUB
Q113 14	2SA1015TPE2	TRANSISTOR	2	ASUB
Q115	2SA970GTPE2	TRANSISTOR	1	ASUB
Q116	2SC2240GTPE2	TRANSISTOR	1	ASUB
Q117	2SC1815TPE2	TRANSISTOR	1	ASUB
Q118	2SA1015TPE2	TRANSISTOR	1	ASUB
Q119	2SA1285FTA	TRANSISTOR	1	ASUB
Q120	2SC3245FTA	TRANSISTOR	1	ASUB
Q121	2SC1815TPE2	TRANSISTOR	1	ASUB
Q122	2SA1015TPE2	TRANSISTOR	1	ASUB
Q123	2SC1815TPE2	TRANSISTOR	1	ASUB
Q124	2SA1015TPE2	TRANSISTOR	1	ASUB
Q201	2SB952A	TRANSISTOR	1	MAIN
Q202 03	2SC1815TPE2	TRANSISTOR	2	MAIN
Q204	2SD601AQ	TRANSISTOR	1	MAIN
Q205	2SD592ARS	TRANSISTOR	1	MAIN
Q206	2SB952A	TRANSISTOR	1	MAIN
Q207 08	2SC1815TPE2	TRANSISTOR	2	MAIN
Q209	2SD601AQ	TRANSISTOR	1	MAIN
Q210	2SB709AR	TRANSISTOR	1	MAIN
Q211	2SD601AQ	TRANSISTOR	1	MAIN
R1	ERDS2T0	0 1/4W	1	CPL
R1	ERDS2T0	0	1	CPR
R1	ERDS2TJ103	10K	1	AS
R1	ERDS2TJ562T	5.6K	1	INVL
R1	ERDS2TJ680T	68	1	JACK
R1	ERG1SJ470	1W 47	1	⚠ JACK2
R1	ERJ6GEYJ102V	1K	1	MAIN
R2	ERDS2T0	0 1/4W	1	CPL
R2	ERDS2T0	0	1	CPR
R2	ERDS2TJ103	10K	1	AS
R2	ERDS2TJ562T	5.6K	1	INVL
R2	ERDS2TJ680T	68	1	JACK
R2	ERG1SJ470	1W 47	1	⚠ JACK2
R2	ERJ6GEYJ472V	4.7K	1	MAIN
R3	ERDS2TJ101	100	1	CPL
R3	ERDS2TJ101	100	1	CPR
R3	ERDS2TJ151	150	1	JACK
R3	ERDS2TJ332T	3.3K	1	AS
R3	ERG1SJ470	1W 47	1	⚠ JACK2
R3	ERJ6GEYJ102V	1K	1	MAIN
R4	ERDS2TJ152	1.5K	1	AS
R4	ERDS2TJ330T	33	1	JACK
R4	ERDS2TJ471	470	1	CPL
R4	ERDS2TJ471	470	1	CPR

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4	ERG1SJ470	1W 47	1	⚠ JACK2
R4	ERJ6GEYJ104V	100K	1	MAIN
R5	ERDS2TJ103	10K	1	AS
R5	ERDS2TJ104T	100K	1	JACK2
R5	ERDS2TJ221T	220	1	CPL
R5	ERDS2TJ221T	220	1	CPR
R5	ERJ6GEYJ104V	100K	1	MAIN
R6	ERDS2TJ103	10K	1	AS
R5	ERDS2TJ221T	220	1	JACK
R6	ERDS2TJ221T	220	1	CPL
R6	ERDS2TJ221T	220	1	CPR
R6	ERDS2TJ331T	330	1	JACK
R6	ERDS2TJ472	4.7K	1	JACK2
R6	ERJ6GEYJ472V	4.7K	1	MAIN
R7	ERDS2FJ222	2.2K	1	JACK2
R7	ERDS2TJ471	470	1	CPL
R7	ERDS2TJ471	470	1	CPR
R7	ERDS2TJ681T	680	1	JACK
R8	ERDS2TJ103	10K	1	CPR
R8	ERDS2TJ104T	100K	1	JACK2
R8	ERDS2TJ472	4.7K	1	CPL
R8	ERDS2TJ472	4.7K	1	PKB
R8	ERDS2TJ681T	680	1	JACK
R9	ERDS2TJ103	10K	1	AS
R9	ERDS2TJ103	10K	1	CPR
R9	ERDS2TJ223T	22K	1	JACK2
R9	ERDS2TJ472	4.7K	1	CPL
R9	ERDS2TJ472	4.7K	1	PKB
R9	ERJ6GEYJ472V	4.7K	1	MAIN
R10	ERDS2TJ333T	33K	1	CPR
R10	ERDS2TJ471	470	1	JACK
R10	ERDS2TJ472	4.7K	1	CPL
R10	ERDS2TJ472	4.7K	1	PKB
R10	ERDS2TJ473T	47K	1	AS
R10	ERDS2TJ683T	68K	1	JACK2
R10	ERJ6GEYJ470V	47	1	MAIN
R11	ERDS2FJ222	2.2K	1	JACK2
R11	ERDS2TJ103	10K	1	AS
R11	ERDS2TJ471	470	1	JACK
R11	ERDS2TJ472	4.7K	1	CPL
R11	ERJ6GEYJ470V	47	1	MAIN
R12	ERDS2TJ152	1.5K	1	JACK2
R12	ERDS2TJ332T	3.3K	1	AS
R12	ERDS2TJ473T	47K	1	CPL
R12	ERJ6GEYJ472V	4.7K	1	MAIN
R13	ERDS2FJ222	2.2K	1	JACK2
R13	ERDS2TJ334	330K	1	AS
R13	ERDS2TJ471	470	1	JACK
R13	ERDS2TJ473T	47K	1	CPL
R13	ERJ6GEYJ472V	4.7K	1	MAIN
R14	ERDS2TJ104T	100K	1	AS
R14	ERDS2TJ104T	100K	1	CPL
R14	ERDS2TJ471	470	1	JACK
R14	ERJ6GEYJ470V	47	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R15	ERDS2TJ102	1K	1	JACK
R15	ERDS2TJ224T	220K	1	AS
R15	ERJ6GEYJ470V	47	1	MAIN
R16	ERDS2TJ102	1K	1	JACK
R16	ERDS2TJ103	10K	1	CPL
R16	ERDS2TJ103	10K	1	CPR
R16	ERDS2TJ334	330K	1	AS
R16	ERJ6GEYJ470V	47	1	MAIN
R17	ERDS2TJ102	1K	1	JACK
R17	ERDS2TJ103	10K	1	CPL
R17	ERDS2TJ103	10K	1	CPR
R17	ERJ6GEYJ470V	47	1	MAIN
R18	ERDS2TJ103	10K	1	CPL
R18	ERDS2TJ103	10K	1	CPR
R18	ERDS2TJ220	22	1	AS
R19	ERDS2FJ222	2.2K	1	AS
R19	ERDS2TJ103	10K	1	CPL
R19	ERDS2TJ103	10K	1	CPR
R19	ERJ6GEYJ472V	4.7K	1	MAIN
R20	ERD2FCVJ4R7T	4.7	1	⚠ AS
R20	ERDS2TJ103	10K	1	CPL
R20	ERDS2TJ103	10K	1	CPR
R21	ERD2FCVG220	22W 1/4W FUSE TYPE	1	⚠ AS
R21 22	ERDS2TJ103	10K	2	CPL
R21 22	ERDS2TJ103	10K	2	CPR
R22	ERDS2TJ224T	220K	1	AS
R23	ERDS2TJ103	10K	1	CPL
R23	ERDS2TJ103	10K	1	CPR
R23	ERDS2TJ334	330K	1	AS
R24	ERDS2TJ103	10K	1	CPL
R24	ERDS2TJ103	10K	1	CPR
R24	ERDS2TJ220	22	1	AS
R25	ERDS2FJ222	2.2K	1	AS
R25	ERDS2TJ103	10K	1	CPL
R25	ERDS2TJ103	10K	1	CPR
R25	ERJ6GEYJ472V	4.7K	1	MAIN
R26	ERD2FCVJ4R7T	4.7	1	⚠ AS
R26	ERDS2TJ103	10K	1	CPL
R26	ERDS2TJ103	10K	1	CPR
R26	ERJ6GEYJ472V	4.7K	1	MAIN
R27	ERD2FCVG220	22W 1/4W FUSE TYPE	1	⚠ AS
R27	ERDS2TJ103	10K	1	CPL
R27	ERDS2TJ103	10K	1	CPR
R27	ERJ6GEYJ472V	4.7K	1	MAIN
R28	ERDS2TJ103	10K	1	CPL
R28	ERDS2TJ103	10K	1	CPR
R28	ERJ6GEYJ472V	4.7K	1	MAIN
R28	ERQ2CJP2R0S	2	1	⚠AS
R29	ERDS2TJ101	100	1	CPL
R29	ERDS2TJ101	100	1	CPR
R29	ERJ6GEY0R00V	CHIP JUMPER	1	MAIN
R29	ERQ2CJP2R0S	2 2W FUSE TYPE	1	⚠ AS
R30	ERDS2TJ101	100	1	CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R30	ERDS2TJ101	100	1	CPR
R30	ERDS2TJ822T	8.2K	1	AS
R30	ERJ6GEYJ470V	47	1	MAIN
R31	ERDS2TJ101	100	1	CPL
R31	ERDS2TJ101	100	1	CPR
R31	ERDS2TJ152	1.5K	1	AS
R31	ERJ6GEYJ472V	4.7K	1	MAIN
R32	ERDS2TJ101	100	1	CPL
R32	ERDS2TJ101	100	1	CPR
R32	ERDS2TJ154	150K	1	AS
R32	ERJ6GEYJ472V	4.7K	1	MAIN
R33	ERDS2TJ101	100	1	CPL
R33	ERDS2TJ101	100	1	CPR
R33	ERDS2TJ122	1.2K	1	AS
R33	ERJ6GEYJ330V	33	1	MAIN
R34	ERDS2TJ101	100	1	CPL
R34	ERDS2TJ101	100	1	CPR
R34	ERDS2TJ224T	220K	1	AS
R34	ERJ6GEYJ470V	47	1	MAIN
R35	ERDS2TJ101	100	1	CPL
R35	ERDS2TJ101	100	1	CPR
R35	ERDS2TJ821T	820	1	AS
R35	ERJ6GEYJ470V	47	1	MAIN
R36	ERDS2TJ101	100	1	CPL
R36	ERDS2TJ101	100	1	CPR
R36	ERDS2TJ393T	39K	1	AS
R36	ERJ6GEY0R00V	CHIP JUMPER	1	MAIN
R37	ERDS2TJ101	100	1	CPL
R37	ERDS2TJ101	100	1	CPR
R37	ERJ6GEYJ470V	47	1	MAIN
R38	ERDS2TJ101	100	1	CPR
R38	ERDS2TJ104T	100K	1	AS
R38	ERDS2TJ333T	33K	1	CPL
R38	ERJ6GEYJ332V	3.3K	1	MAIN
R39	ERDS2TJ101	100	1	CPR
R39	ERDS2TJ102	1K	1	AS
R39	ERJ6GEYJ331V	330	1	MAIN
R40	ERDS2TJ101	100	1	CPR
R40	ERDS2TJ563	56K	1	AS
R41	ERDS2TJ681T	680	1	AS
R42	ERDS2TJ683T	68K	1	AS
R43	ERDS2TJ822T	8.2K	1	AS
R44	ERDS2TJ152	1.5K	1	AS
R45	ERDS2TJ154	150K	1	AS
R46	ERDS2TJ122	1.2K	1	AS
R47	ERDS2TJ224T	220K	1	AS
R48	ERDS2TJ821T	820	1	AS
R48	ERJ6GEYJ101V	100	1	MAIN
R49	ERDS2TJ393T	39K	1	AS
R49	ERJ6GEYJ101V	100	1	MAIN
R51	ERDS2TJ104T	100K	1	AS
R51	ERJ6GEYJ470V	47	1	MAIN
R52	ERDS2TJ102	1K	1	AS
R52	ERJ6GEYJ470V	47	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R53	ERDS2TJ563	56K	1	AS
R54	ERDS2TJ681T	680	1	AS
R55	ERDS2TJ683T	68K	1	AS
R56	ERDS2TJ393T	39K	1	AS
R57	ERDS2TJ564	560K	1	AS
R58	ERDS2FJ222	2.2K	1	AS
R59	ERDS2TJ393T	39K	1	AS
R60	ERDS2TJ104T	100K	1	AS
R61	ERDS2TJ105	1M	1	AS
R62	ERDS2TJ152	1.5K	1	AS
R65	ERDS2TJ393T	39K	1	AS
R66	ERDS2TJ564	560K	1	AS
R67	ERDS2FJ222	2.2K	1	AS
R68	ERDS2TJ393T	39K	1	AS
R69	ERDS2TJ104T	100K	1	AS
R70	ERDS2TJ105	1M	1	AS
R71	ERDS2FJ222	2.2K	1	AS
R74 75	ERF5TJ100	10 5W FLAME-PROOF	2	⚠ AS
R78 79	ERF2EXKR10V	0.1 2W FLAME-PROOF	2	⚠ AS
R80	ERDS2TJ223T	22K	1	AS
R81	ERDS2TJ472	4.7K	1	AS
R82	ERDS2TJ333T	33K	1	AS
R83	ERDS2TJ223T	22K	1	AS
R84	ERDS2TJ472	4.7K	1	AS
R85	ERDS2TJ333T	33K	1	AS
R86	ERDS2TJ103	10K	1	AS
R87	ERDS2TJ104T	100K	1	AS
R89	ERDS2TJ104T	100K	1	AS
R90	ERDS2TJ103	10K	1	AS
R91	ERDS2TJ472	4.7K	1	AS
R92	ERDS2TJ103	10K	1	AS
R93	ERDS2TJ472	4.7K	1	AS
R94	ERDS2TJ473T	47K	1	AS
R95	ERDS2TJ332T	3.3K	1	AS
R96	ERDS2TJ103	10K	1	AS
R97 98	ERQ2CJP6R8S	6.8 2W FUSE TYPE	2	⚠ AS
R101	ERD2FCG221T	220 1/4W FUSE TYPE	1	⚠ ASUB
R101	ERDS2TJ682T	6.8K	1	AS
R101	ERJ6GEYJ102V	1K	1	MAIN
R102	ERDS2TJ152	1.5K	1	ASUB
R102	ERDS2TJ682T	6.8K	1	AS
R102	ERJ6GEYJ101V	100	1	MAIN
R103	ERDS2TJ152	1.5K	1	ASUB
R103	ERJ6GEYJ470V	47	1	MAIN
R104	ERDS2TJ472	4.7K	1	ASUB
R104	ERJ6GEYJ470V	47	1	MAIN
R105	ERD2FCVG221T	220 1/4W FUSE TYPE	1	⚠ ASUB
R105	ERJ6GEYJ472V	4.7K	1	MAIN
R106	ERD2FCVG221T	220 1/4W FUSE TYPE	1	⚠ ASUB
R106	ERJ6GEYJ472V	4.7K	1	MAIN
R107	ERD2FCVG471T	470	1	⚠ ASUB
R107	ERJ6GEYJ103V	10K	1	MAIN
R108	ERD2FCVG471T	470	1	⚠ ASUB

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R108	ERJ6GEYJ470V	47	1	MAIN
R109	ERDS2TJ103	10K	1	ASUB
R109	ERJ6GEYJ101V	100	1	MAIN
R110	ERDS2TJ103	10K	1	ASUB
R110	ERJ6GEYJ105V	1/10W 1M	1	MAIN
R111	ERJ6GEYJ102V	1K	1	MAIN
R112	ERJ6GEYJ682V	6.8K	1	MAIN
R113	ERD2FCVG221T	220 1/4W FUSE TYPE	1	⚠ ASUB
R113	ERJ6GEYJ103V	10K	1	MAIN
R114	ERDS2TJ152	1.5K	1	ASUB
R114	ERJ6GEYJ101V	100	1	MAIN
R115	ERDS2TJ152	1.5K	1	ASUB
R115	ERJ6GEYJ472V	4.7K	1	MAIN
R116	ERDS2TJ472	4.7K	1	ASUB
R116	ERJ6GEYJ472V	4.7K	1	MAIN
R117	ERD2FCVG221T	220 1/4W FUSE TYPE	1	ASUB ⚠
R117	ERJ6GEYJ472V	4.7K	1	MAIN
R118	ERD2FCVG221T	220 1/4W FUSE TYPE	1	⚠ ASUB
R118	ERJ6GEYJ472V	4.7K	1	MAIN
R119	ERD2FCVG471T	470	1	⚠ ASUB
R119	ERJ6GEYJ331V	330	1	MAIN
R120	ERD2FCVG471T	470	1	⚠ ASUB
R120	ERJ6GEYJ331V	330	1	MAIN
R121	ERDS2TJ103	10K	1	ASUB
R121	ERJ6GEYJ331V	330	1	MAIN
R122	ERDS2TJ103	10K	1	ASUB
R122	ERJ6GEYJ331V	330	1	MAIN
R123	ERJ6GEYJ474V	470K	1	MAIN
R124 25	ERJ6GEYJ152V	1/10W 1.5K	2	MAIN
R126	ERJ6GEYJ124V	120K	1	MAIN
R127	ERJ6GEYJ101V	100	1	MAIN
R128 29	ERJ6GEYJ472V	4.7K	2	MAIN
R130 31	ERJ6GEY0R00V	CHIP JUMPER	2	MAIN
R132	ERJ6GEYJ472V	4.7K	1	MAIN
R133	ERJ6GEYJ473V	47K	1	MAIN
R134	ERJ6GEYJ472V	4.7K	1	MAIN
R201	ERJ6GEYJ105V	1M	1	MAIN
R202	ERJ6GEYJ101V	100	1	MAIN
R203	ERJ6GEYJ102V	1K	1	MAIN
R204	ERJ6GEYJ470V	47	1	MAIN
R205 06	ERJ6GEYJ681V	680	2	MAIN
R207 08	ERJ6GEYJ151V	150	2	MAIN
R209	ERJ6GEYJ470V	47	1	MAIN
R210	ERJ6GEYJ151V	150	1	MAIN
R211	ERJ6GEYJ472V	4.7K	1	MAIN
R212	ERJ6GEYJ563V	56K	1	MAIN
R213	ERJ6GEYJ471V	470	1	MAIN
R214	QRSGBB471QT2	THERMISTOR	1	MAIN
R215	ERJ6GEYJ154V	150K	1	MAIN
R216	ERJ6GEYJ471V	470	1	MAIN
R217	ERJ6GEYJ472V	4.7K	1	MAIN
R218 19	ERJ6GEYJ471V	470	2	MAIN
R220	ERJ6GEYJ682V	6.8K	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R221 22	ERJ6GEYJ472V	4.7K	2	MAIN
R223	ERJ6GEYJ683V	68K	1	MAIN
R224	ERJ6GEYJ682V	6.8K	1	MAIN
R225	ERJ6GEYJ471V	470	1	MAIN
R226	ERJ6GEYJ472V	4.7K	1	MAIN
R227	ERJ6GEYJ683V	68K	1	MAIN
R228	ERG1SJ101	100	1	⚠MAIN
R229	ERJ6GEYJ471V	470	1	MAIN
R230	ERG2SJ222	2.2K 2W FLAME PROOF	1	⚠ MAIN
R231 32	ERG2SJ100	10 2W FLAME PROOF	2	⚠ MAIN
R233 34	ERJ6GEYJ681V	680	2	MAIN
R235 36	ERJ6GEYJ151V	150	2	MAIN
R237	ERJ6GEYJ470V	47	1	MAIN
R238	ERJ6GEYJ151V	150	1	MAIN
R239	ERJ6GEYJ472V	4.7K	1	MAIN
R240	ERJ6GEYJ104V	100K	1	MAIN
R241	ERJ6GEYJ471V	470	1	MAIN
R242	QRSGBB471QT2	THERMISTOR	1	MAIN
R243	ERJ6GEYJ154V	150K	1	MAIN
R244	ERJ6GEYJ471V	470	1	MAIN
R245	ERJ6GEYJ102V	1K	1	MAIN
R246 47	ERJ6GEYJ563V	56K	2	MAIN
R248 49	ERJ6GEYJ332V	3.3K	2	MAIN
R250	ERJ6GEYJ682V	6.8K	1	MAIN
R251	ERJ6GEYJ153V	1.5K	1	MAIN
R252	ERJ6GEYJ682V	6.8K	1	MAIN
R253	ERJ6GEYJ153V	1.5K	1	MAIN
R254 55	ERJ6GEYJ223V	22K	2	MAIN
R256	ERJ6GEYJ471V	470	1	MAIN
R257	ERJ6GEYJ101V	100	1	MAIN
R259 60	ERJ6GEYJ102V	1K	2	MAIN
R262 63	ERJ6GEYJ103V	10K	2	MAIN
R264	ERJ6GEYJ101V	100	1	MAIN
R301	ERJ6GEYJ221V	220	1	MAIN
R302	ERJ6GEYJ470V	47	1	MAIN
R303	ERJ6GEYJ105V	1M	1	MAIN
R304-07	ERJ6GEYJ101V	100	4	MAIN
R308-10	ERJ6GEYJ470V	47	3	MAIN
R311-16	ERJ6GEYJ471V	470	6	MAIN
S1	QSPG1010AA	SW POWER	1	⚠
S1-S3	QSTGT001AA	LEVER SWITCH	3	PKB
SP1 P2	EAST20PL02A6	20CM 6W	2	
SP3 P4	EAS15S09A	MONITOR SP	2	
SP5 P6	QASG65PH03A	6.5CM 8W	2	
SW1	EVQ21507K	PUSH SWITCH	1	CPR
SW1	QSRGT005AA	VOLTAGE SELECTOR	1	⚠ACP(X XA XD XT XS ONLY)
SW1	QSSGT011AA	SLIE SWITCH	1	JACK
SW2-W5	EVQ21507K	PUSH SWITCH	4	CPR
SW7-70	EVQ21507K	PUSH SWITCH	64	CPR
SW1-61	EVQ21507K	PUSH SWITCH	61	CPL

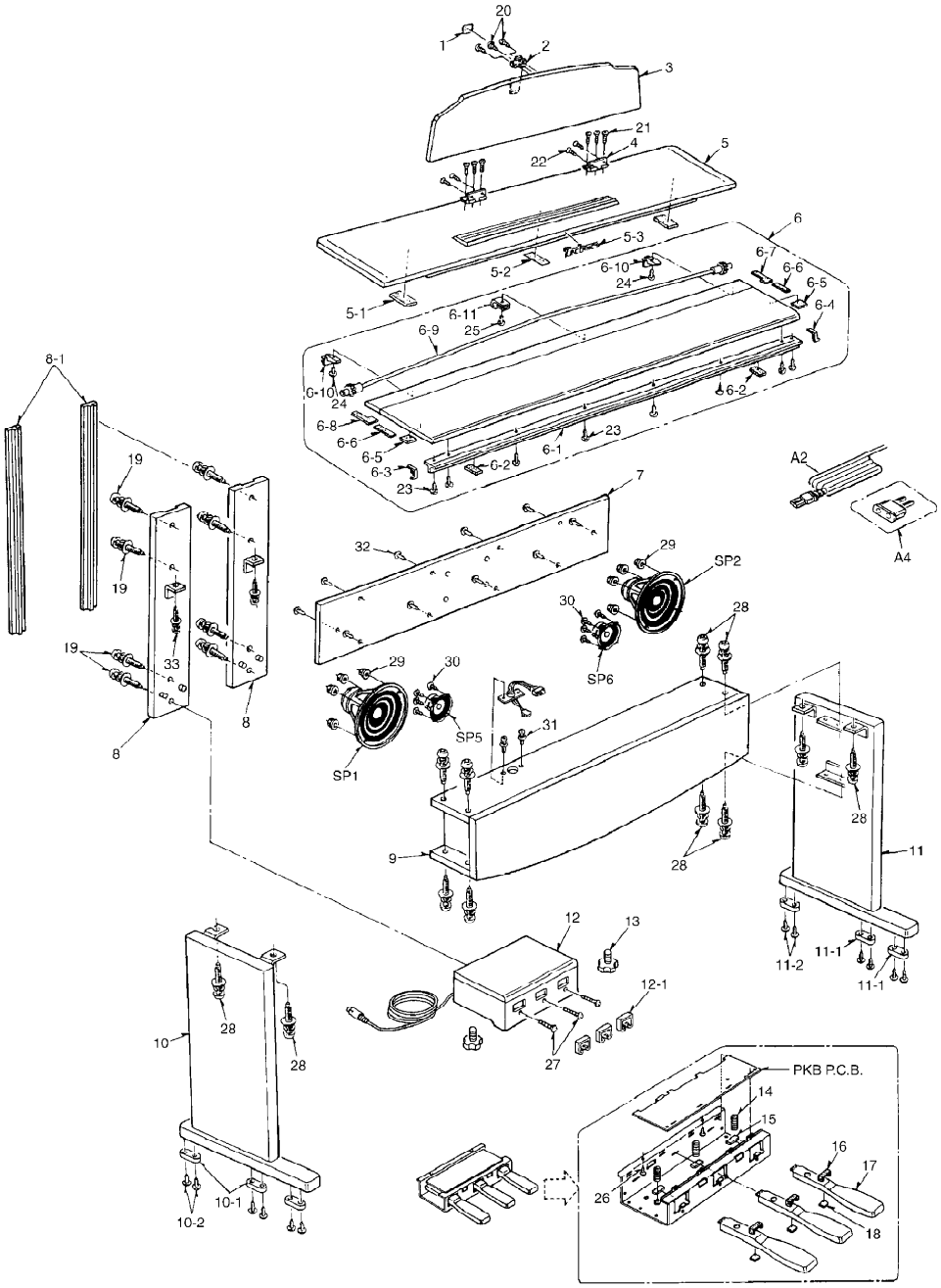
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
SW62	QSRGT002AA	ENCODER SWITCH	1	CPL
SW1-4	—	SWITCH	4	MKB1*1
SW5-16	—	SWITCH	12	MKB1*1
SW17-28	—	SWITCH	12	MKB1*1
SW29-40	—	SWITCH	12	MKB1*1
SW41-52	—	SWITCH	12	MKB1 MKB2*1
SW53-64	—	SWITCH	12	MKB2*1
SW65-76	—	SWITCH	12	MKB2*1
SW77-88	—	SWITCH	12	MKB2*1
T1	QTDG003A	TRANSFORMER	1	⚠ INVL
VR1	QRNG0681C102	1K	1	AS
VR1	QRVG09A02B54	VR	1	JACK2
VR1	QRVG25N01B53	5KW B APC/SEQUENCER	1	CPL
VR2	QRVG25P01B53	5KW B MAIN	1	CPL
W1	QEXGRA01007L	WIRE	1	JACK
W1	QEXGVH06028B	CONNECTOR WITH WIRE	1	
W2	QEXGRA01007L	WIRE	1	JACK
W2	QEXGVH04095C	CONNECTOR WITH WIRE	1	
W3	QEXGRA01007L	WIRE	1	JACK
W3	QEXGSS06075A	CONNECTOR WITH WIRE	1	
W4	QEXGVH03140B	CONNECTOR WITH WIRE	1	
W5	QJLG013AA	PEDAL CORD	1	
W6	QEXGSS16110A	CONNECTOR WITH WIRE	1	
W7	QEXGSS05050B	CONNECTOR WITH WIRE	1	
W8	QEXGZA12060A	CONNECTOR WITH WIRE	1	
W9	QEXGZA06078A	CONNECTOR WITH WIRE	1	
W10	QEXGSS05100B	CONNECTOR WITH WIRE	1	
W11	QEXGZA34075B	CONNECTOR WITH WIRE	1	
W12	QEXGSS10030A	CONNECTOR WITH WIRE	1	
W13	QEXGSS07030A	CONNECTOR WITH WIRE	1	
W14	QEXGSS05030A	CONNECTOR WITH WIRE	1	
W15	QEXGEL06085F	CONNECTOR WITH WIRE	1	
X1	EFOEC4004T	4MHZ CERAMIC OSCILATOR	1	CPL
X1	EFOEC4004T	4MHZ CERAMIC OSCILATOR	1	CPR
X1	QSXG1A1600A	16MH CERAMIC OSCILATOR	1	MAIN
X101	QSXG2F2400A	24MHZ CERAMIC OSCILLATOR	1	MAIN
X201	QSXG1A2500A	25MHz QUARTZ OSCILLATOR	1	MAIN
X301	QSXG1A1693A	CERAMIC OSCILLATOR	1	MAIN
Z1	EXBA10E472J	4.7KW × 8	1	MAIN
Z2-Z4	EXBV8V470J	47W × 4	3	MAIN
Z5 Z6	EXBA10E472J	4.7KW × 8	2	MAIN
Z7 Z8	EXBV8V101J	100W × 4	2	MAIN
Z9	EXBA10E472J	4.7KW × 8	1	MAIN
Z10	EXBS8V472J	4.7KW × 4	1	MAIN
Z11	EXBV8V101J	100W × 4	1	MAIN
Z12-14	EXBA10E472J	4.7KW × 8	3	MAIN
Z15	EXBV8V101J	100W × 4	1	MAIN
Z16 17	EXBA10E472J	4.7KW × 8	2	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Z18	EXBS8V101J	100W × 4	1	MAIN
Z19 20	EXBS8V472J	4.7KW × 4	2	MAIN
Z101	EXBV8V102J	1KW × 4	1	MAIN
Z102-05	EXBS8V470J	47W × 4	4	MAIN
Z106	EXBS8V221J	220W × 4	1	MAIN
Z107	EXBV8V472J	4.7KW × 4	1	MAIN
Z108	EXBS8V101J	100W × 4	1	MAIN
Z109	EXBV8V472J	4.7KW × 4	1	MAIN
Z110	EXBV8V470J	47W × 4	1	MAIN
Z111	EXBV8V472J	4.7KW × 4	1	MAIN
Z112	EXBA10E472J	4.7KW × 8	1	MAIN
Z201 02	EXBV8V102J	1KW × 4	2	MAIN
Z203 04	EXBV8V101J	100W × 4	2	MAIN
Z205	EXBV8V220J	22W × 4	1	MAIN
Z301-03	EXBV8V221J	220W × 4	3	MAIN
Z304	EXBS8V472J	4.7KW × 4	1	MAIN
Z305	EXBS8V223J	22KW × 4	1	MAIN
Z306	EXBS8V472J	4.7KW × 4	1	MAIN
Z307	EXBS8V223J	22KW × 4	1	MAIN
Z308 09	EXBV8V472J	4.7KW × 4	2	MAIN
Z310	EXBS8V470J	47W × 4	1	MAIN
Z311-14	EXBV8V470J	47W × 4	4	MAIN
Z315-26	EXBV8V471J	470W × 4	12	MAIN
ZC101-04	ECJRVC1H470K	47PF × 4	4	MAIN
ZC105 06	ECJRVC1H101K	100PF × 4	2	MAIN
ZC303	ECJRVC1H101K	100PF × 4	1	MAIN

Notes:

***1: Since SW consists of buttons and P.C.B.s, we do not supply it as an individual part (refer to "CABINET PARTS LOCATION " on the next page).**

17. CABINET PARTS LOCATION


20
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5-1
6-11
25
6-9
6-2
23
6-1
6-3
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8-1
19
33
8
7
32
29
SP2
30
28
SP6
SP5
31
SP1
9
11
11-2
11-1
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13
12-1
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10-1
10-2
A2
A4
PKB P.C.B.
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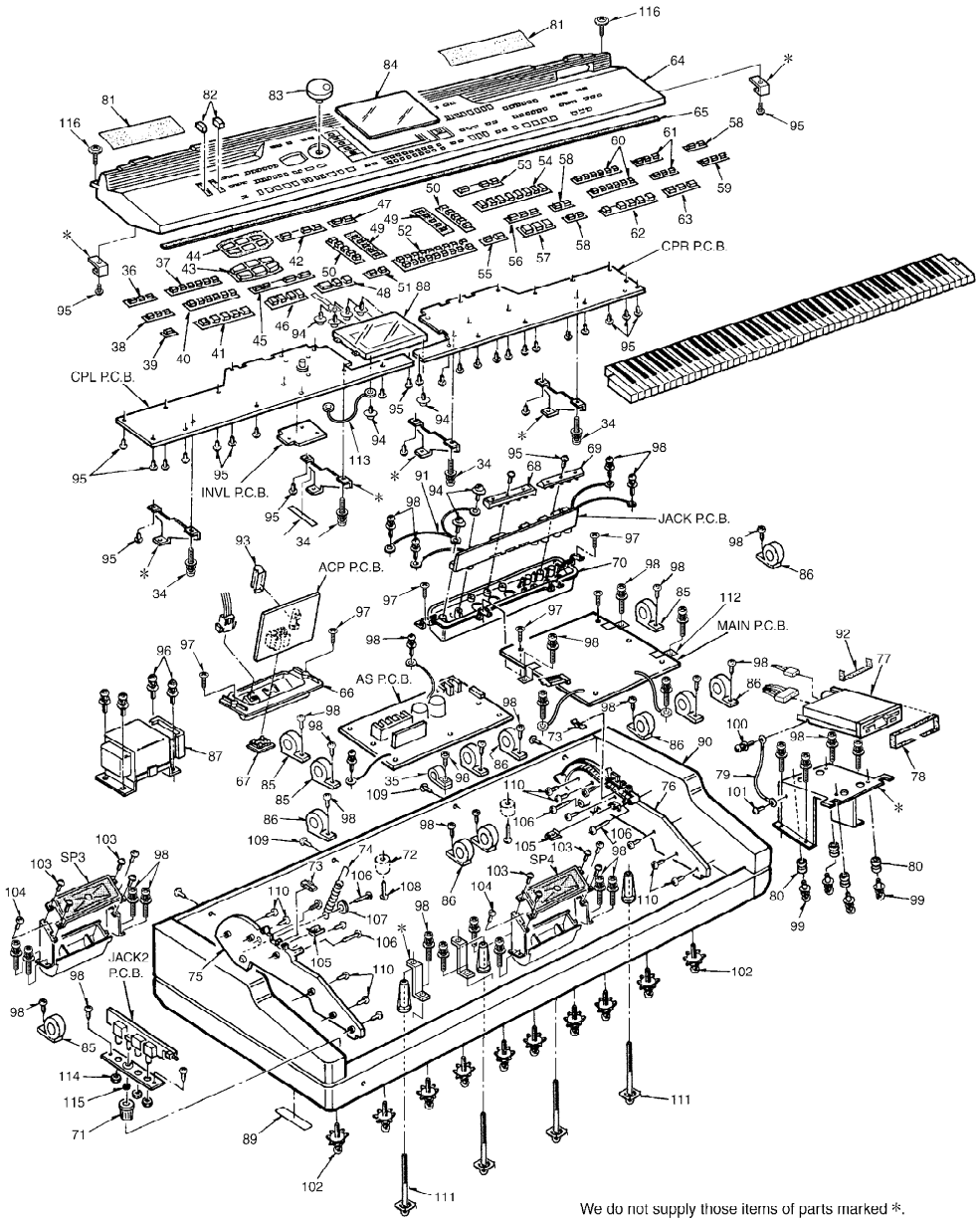
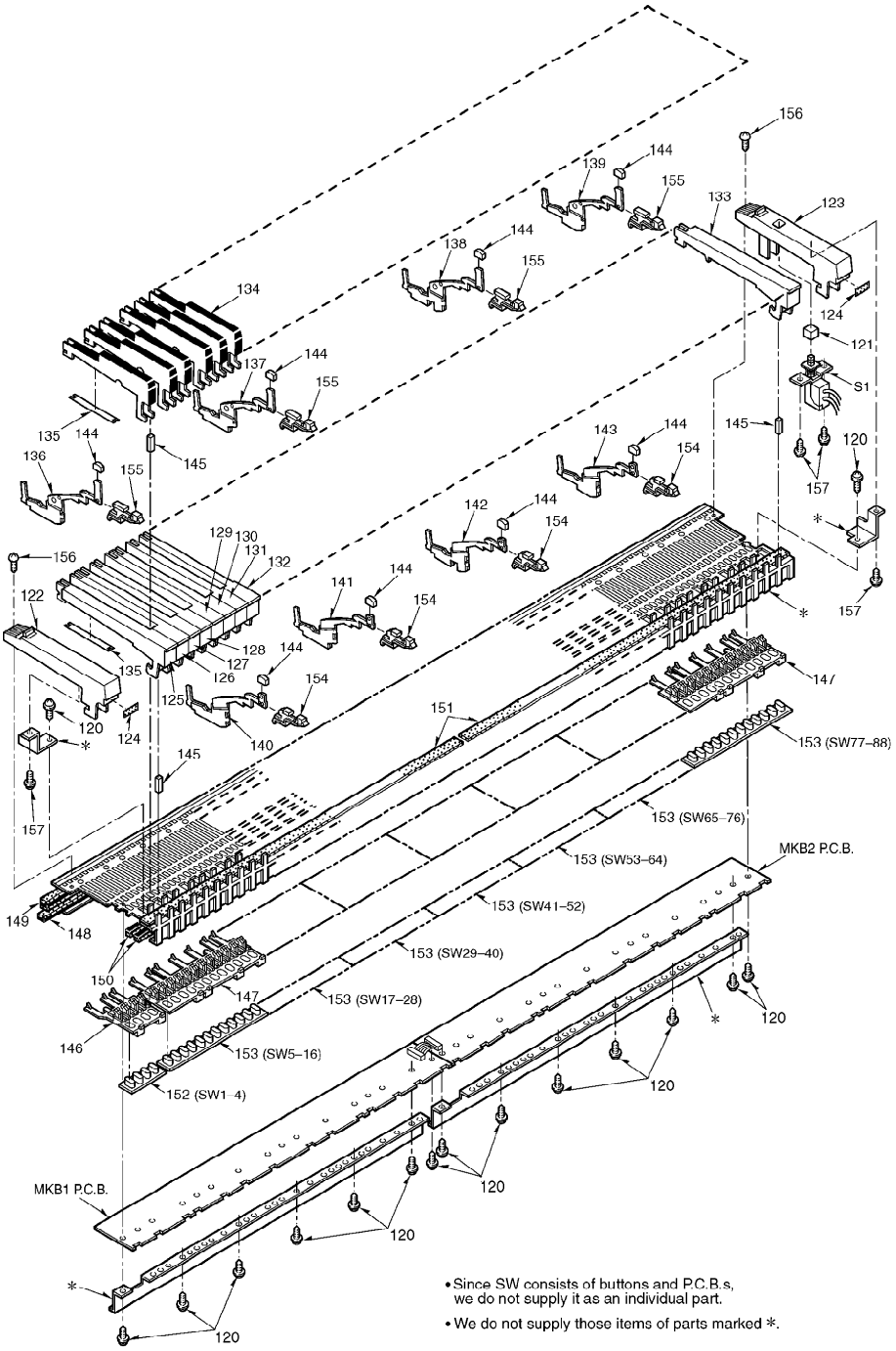
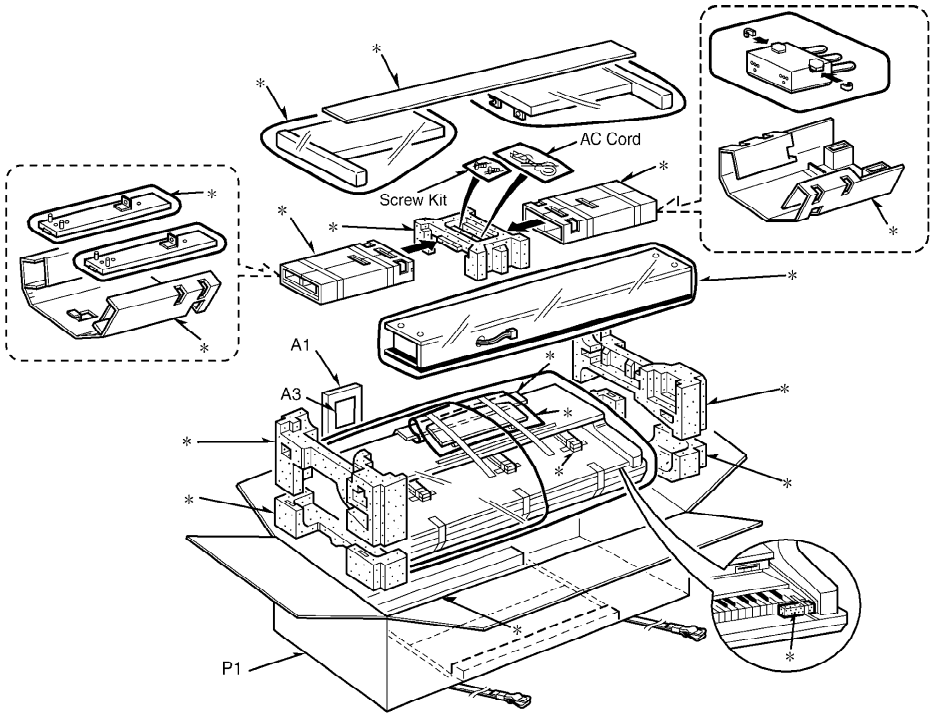


We do not supply those items of parts marked *.



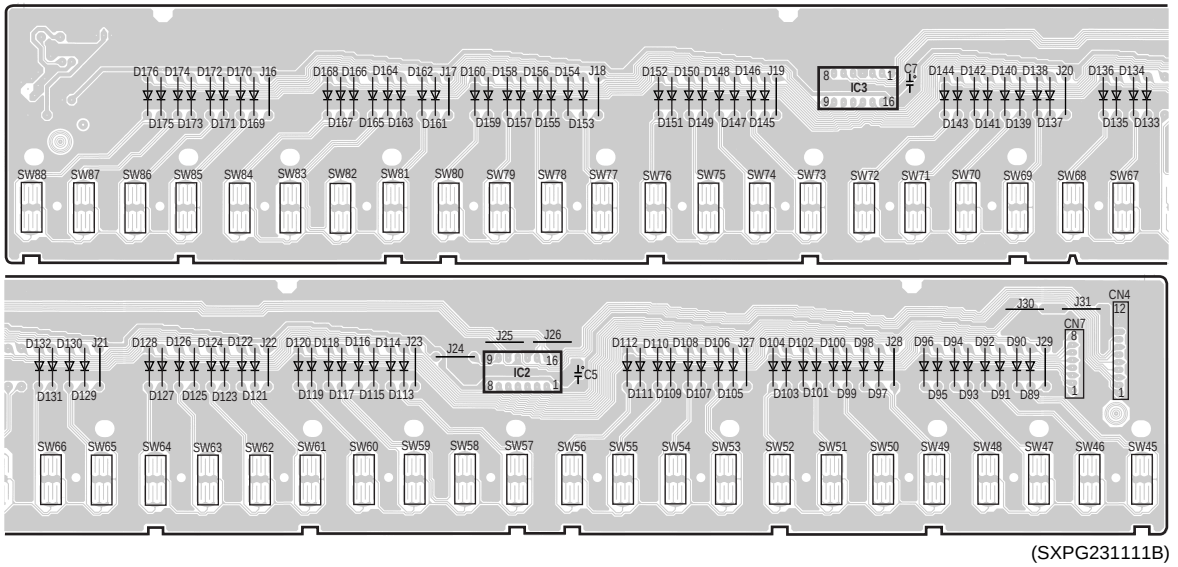
18. PACKAGING



We do not supply those items of parts marked *.

/ Printed in Japan / S000700000 HM/AM

F MKB2 P.C.B.

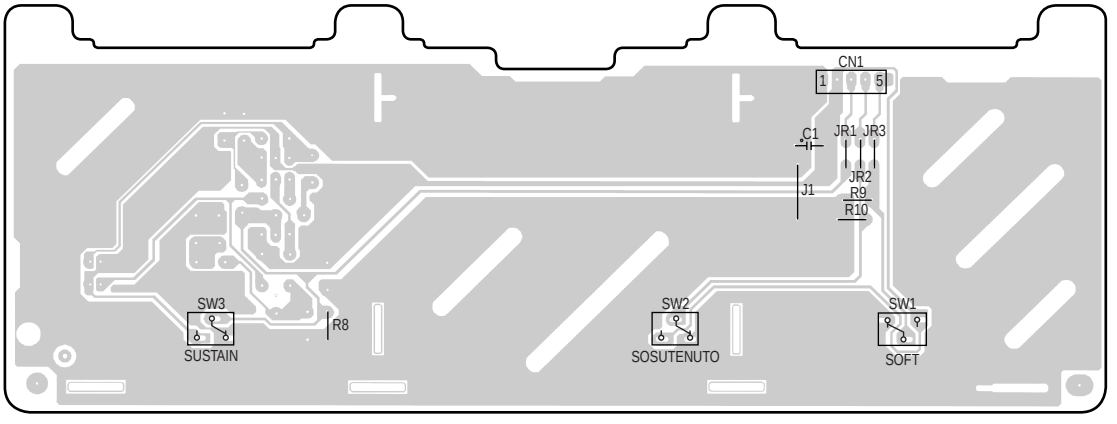


(SXPG231111B)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
F MKB2 P.C.B.									
IC2	C-3	D115	B-3	D143	E-2	D171	B-2	SW63	B-3
IC3	E-2	D116	B-3	D144	E-1	D172	B-1	SW64	A-3
D89	E-3	D117	B-3	D145	D-2	D173	B-2	SW65	A-3
D90	E-3	D118	B-3	D146	D-1	D174	B-1	SW66	A-3
D91	E-3	D119	B-3	D147	D-2	D175	A-2	SW67	F-2
D92	E-3	D120	B-3	D148	D-1	D176	A-1	SW68	E-2
D93	E-3	D121	B-3	D149	D-2	CN4	F-2	SW69	E-2
D94	E-3	D122	B-3	D150	D-1	CN7	E-3	SW70	E-2
D95	E-3	D123	B-3	D151	D-2	C5	C-3	SW71	E-2
D96	E-3	D124	B-3	D152	D-1	C7	E-1	SW72	E-2
D97	E-3	D125	B-3	D153	C-2	SW45	F-3	SW73	D-2
D98	E-3	D126	B-3	D154	C-1	SW46	F-3	SW74	D-2
D99	D-3	D127	A-3	D155	C-2	SW47	E-3	SW75	D-2
D100	D-3	D128	A-3	D156	C-1	SW48	E-3	SW76	D-2
D101	D-3	D129	A-3	D157	C-2	SW49	E-3	SW77	C-2
D102	D-3	D130	A-3	D158	C-1	SW50	E-3	SW78	C-2
D103	D-3	D131	A-3	D159	C-2	SW51	D-3	SW79	C-2
D104	D-3	D132	A-3	D160	C-1	SW52	D-3	SW80	C-2
D105	D-3	D133	F-2	D161	C-2	SW53	D-3	SW81	B-2
D106	D-3	D134	F-1	D162	C-1	SW54	D-3	SW82	B-2
D107	D-3	D135	F-2	D163	B-2	SW55	C-3	SW83	B-2
D108	D-3	D136	F-1	D164	B-1	SW56	C-3	SW84	B-2
D109	D-3	D137	E-2	D165	B-2	SW57	C-3	SW85	B-2
D110	D-3	D138	E-1	D166	B-1	SW58	C-3	SW86	A-2
D111	D-3	D139	E-2	D167	B-2	SW59	C-3	SW87	A-2
D112	C-3	D140	E-1	D168	B-1	SW60	B-3	SW88	A-2
D113	B-3	D141	E-2	D169	B-2	SW61	B-3		
D114	B-3	D142	E-1	D170	B-1	SW62	B-3		

G PKB P.C.B.

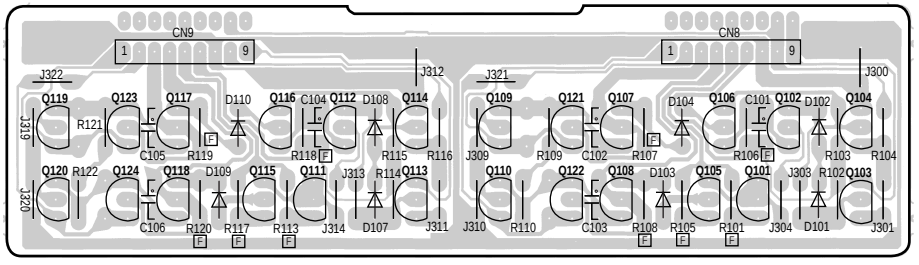


(SXPG218231)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
G PKB P.C.B.							
CN1	D-1	R10	D-2	SW2	D-3	JR2	E-2
R8	B-3	C1	D-2	SW3	B-3	JR3	E-2
R9	E-2	SW1	E-3	JR1	D-2		

H ASUB P.C.B.

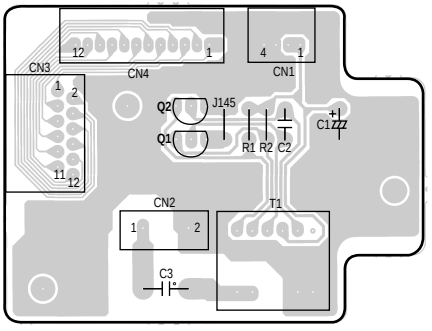


(SXPG229821B)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
H ASUB P.C.B.											
Q101	D-2	Q111	B-2	Q121	C-2	D109	B-2	R107	D-2	R119	B-2
Q102	D-2	Q112	B-2	Q122	C-2	D110	B-2	R108	D-2	R120	B-2
Q103	E-2	Q113	C-2	Q123	A-2	CN8	D-1	R109	C-2	R121	A-2
Q104	E-2	Q114	C-2	Q124	A-2	CN9	B-1	R110	C-2	R122	A-2
Q105	D-2	Q115	B-2	D101	D-2	R101	D-2	R113	B-2	C101	D-2
Q106	D-2	Q116	B-2	D102	D-2	R102	D-2	R114	B-2	C102	C-2
Q107	C-2	Q117	B-2	D103	D-2	R103	D-2	R115	C-2	C103	C-2
Q108	C-2	Q118	B-2	D104	D-2	R104	E-2	R116	C-2	C104	B-2
Q109	C-2	Q119	A-2	D107	B-2	R105	D-2	R117	B-2	C105	A-2
Q110	C-2	Q120	A-2	D108	B-2	R106	D-2	R118	B-2	C106	A-2

I INVL P.C.B.

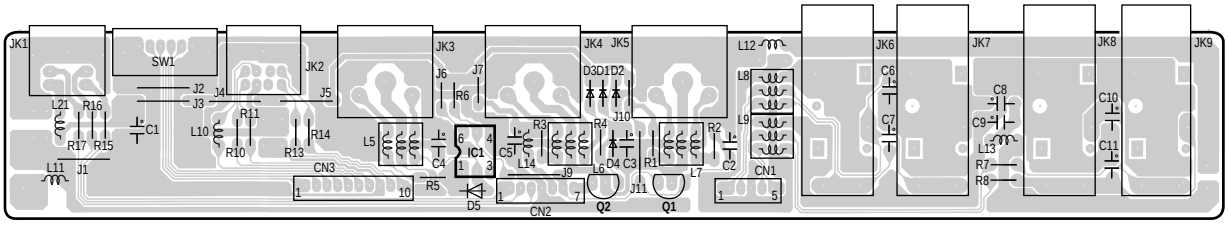


(SXPG229751A)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
I INV P.C.B.							
Q1	B-5	CN2	A-6	R1	B-5	C2	B-5
Q2	B-5	CN3	A-5	R2	B-5	C3	A-6
CN1	B-5	CN4	A-5	C1	B-5	T1	B-6

J JACK P.C.B.



(SXPG229911)

ELECTRICAL PARTS LOCATION

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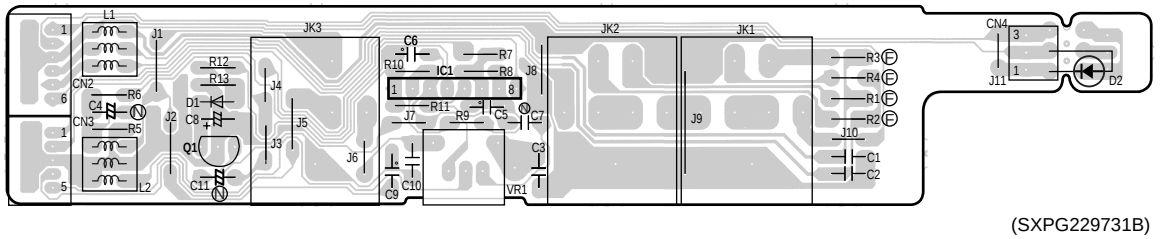
J JACK P.C.B.											
IC1	C-2	CN3	B-2	L14	C-2	R10	B-2	C4	C-2	JK3	B-1
Q1	D-2	L5	B-2	L21	A-2	R11	B-2	C5	C-2	JK4	C-1
Q2	C-2	L6	C-2	R1	D-2	R13	B-2	C6	E-2	JK5	D-1
D1	C-1	L7	D-2	R2	D-2	R14	B-2	C7	E-2	JK6	D-1
D2	C-1	L8	D-1	R3	C-2	R15	A-2	C8	E-2	JK7	E-1
D3	C-1	L9	D-2	R4	C-2	R16	A-2	C9	E-2	JK8	E-1
D4	C-2	L10	B-2	R5	C-2	R17	A-2	C10	F-2	JK9	F-1
D5	C-2	L11	A-2	R6	C-2	C1	A-2	C11	F-2	SW1	A-1
CN1	D-2	L12	D-1	R7	E-2	C2	D-2	JK1	A-1		
CN2	C-2	L13	E-2	R8	E-2	C3	C-2	JK2	B-1		

K JACK2 P.C.B.



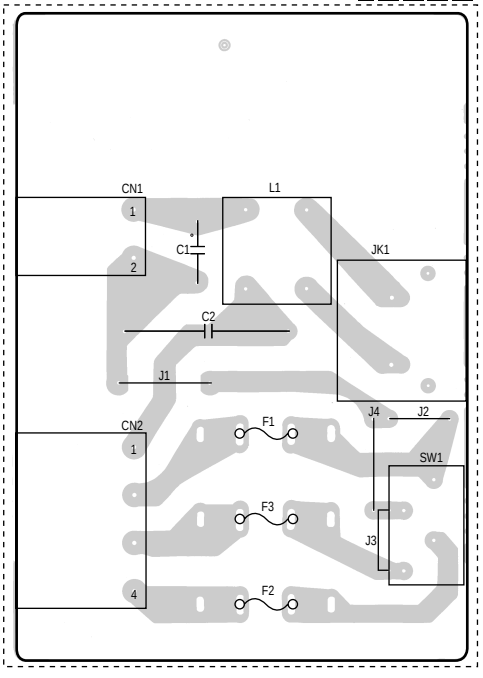
(SXPG229731B)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
K JACK2 P.C.B.											
IC1	C-5	L1	A-5	R6	A-5	R13	B-5	C7	C-5	JK3	B-5
Q1	B-5	L2	A-5	R7	C-5	C1	E-5	C8	B-5	VR1	C-5
D1	B-5	R1	E-5	R8	C-5	C2	E-5	C9	C-5		
D2	E-5	R2	E-5	R9	C-5	C3	C-5	C10	C-5		
CN2	A-5	R3	E-5	R10	C-5	C4	A-5	C11	B-5		
CN3	A-5	R4	E-5	R11	C-5	C5	C-5	JK1	D-5		
CN4	E-5	R5	A-5	R12	B-5	C6	C-5	JK2	C-5		

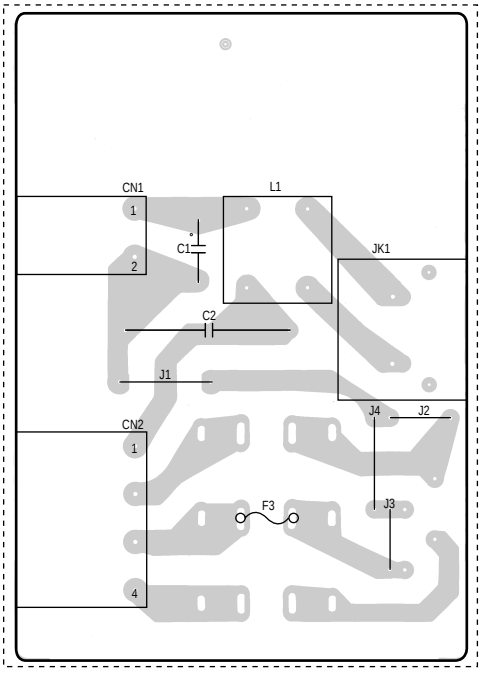
L ACP P.C.B.

X XS XD XT XA



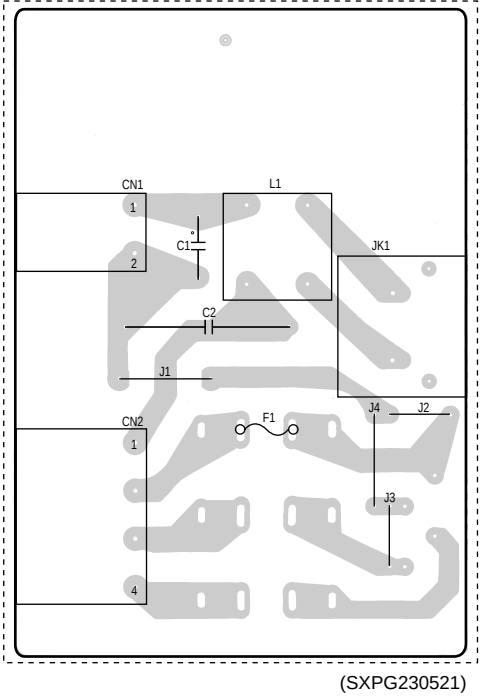
(SXPG230551)

OTHERS



(SXPG230511)

P PC



(SXPG230521)

ELECTRICAL PARTS LOCATION

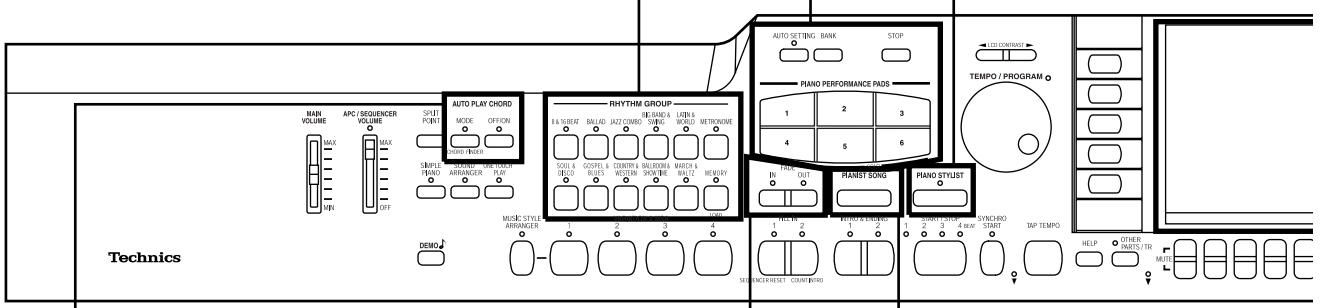
Ref.No.	Lo.No.	Ref.No.	Lo.No.
L ACP P.C.B.			
L1	B-2	F1	B-3
CN1	A-2	F2	B-4
CN2	A-3	F3	B-3
C1	B-2	JK1	B-2
C2	B-3	SW1	C-3

Controls and functions (PR703/PR903)

PIANO PERFORMANCE PADS
Add various phrases to your performance with the pad buttons.

RHYTHM GROUP
Various rhythm patterns are available for each rhythm group.

PIANO STYLIST
You can choose to have all the settings of this instrument automatically set.



AUTO PLAY CHORD
Add an automatic accompaniment to your selected rhythm.

FADE IN/OUT
Begin your song with a slowly increasing volume, or end it by having the sound slowly fade away.

PIANIST SONG
When you play a song from the included score, a realistic accompaniment is automatically added to your performance.

■ **Tuning**

Unlike an acoustic piano, your PR Series Digital Ensemble never needs tuning.
The pitch of this instrument can be adjusted for when playing along with other instruments.

■ **About the backup memory**

The settings and memories are maintained for approximately 80 minutes after the power to this instrument is turned off. If you wish to keep the memory contents, before you turn off the instrument, use the SAVE procedure to store the desired data on a disk for recall at a later time.

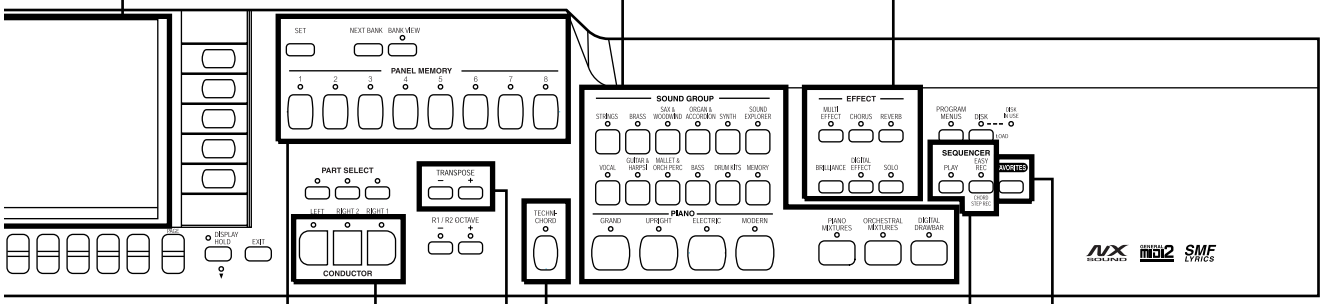
- The backup memory does not function until the power has been on for about 10 minutes.
- When you quit the operating mode, a REMINDER display may appear to remind you to save the data.

DISPLAY
Displays performance information, function settings and other messages.

- Use the **LCD CONTRAST** buttons to adjust the display so that it is easy to read.

SOUND GROUP
Various sounds are available for each sound group.

EFFECT
Add various effects to the sounds.



TECHNI-CHORD
Block chords are automatically added to the melody.

FAVORITES
Fashion a customized display in which all your favorite sounds, rhythms and styles are assembled.

TRANSPOSE
Raise or lower the key of the entire keyboard.

SEQUENCER
Record and play back your performance.

CONDUCTOR
Assign a different sound to each part, then assign the desired parts to sections of the keyboard.

PANEL MEMORY
Store the panel settings, then recall them instantaneously just by pressing a button or two.

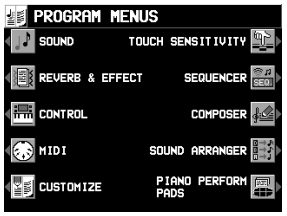
Initialize

This instrument has many settable functions and storable memories. However, you can return the settings and memory to the factory-preset status.

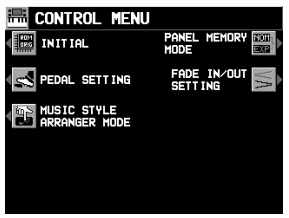
INITIAL

1. Press the **PROGRAM MENUS** button to turn it on.

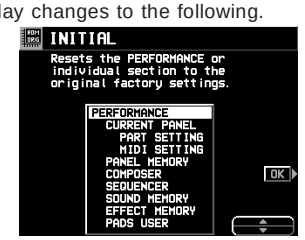
- The display changes to the following.



2. Select CONTROL.
- The display looks similar to the following.



3. Select INITIAL.
- This display changes to the following.



4. Use the ▲ and ▼ buttons to select the desired type of initialization.
- PERFORMANCE includes all the items which are listed below it.

5. Press the OK button.
- The display changes to the confirmation display. Press the YES button if you wish to execute the initialization. Press the NO button if you wish to cancel the procedure.

- Initialization begins. When initialization is completed, "COMPLETED!" is shown on the display and this instrument returns to the normal performance mode.
- The MIDI & FAVORITES are not initialized by this procedure.

You can also reset all the PERFORMANCE items with the following procedure:
Turn off the power to this instrument once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**SOUL & DISCO**, **GOSPEL & BLUES** and **COUNTRY & WESTERN**) at the same time, turn the power on again.

Power on settings

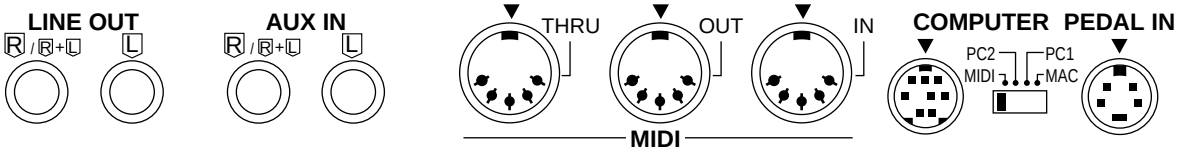
When the **POWER** button of this instrument is turned on, the settings below are automatically set to those suitable for piano performance.

Sound	**GRAND PIANO** (CONCERT)
CONDUCTOR	**RIGHT 1**
TRANSPOSE	C
SUSTAIN PEDAL	On
R1/R2 OCTAVE	Off
SYNCHRO START	Off
AUTO PLAY CHORD	Off
All PART SETTING items for the RIGHT 1 part	Appropriate values
PEDAL SETTING	Left: SOFT Center: SOSTENUTO

- When you turn the power on, you can recall all the settings which were in effect at the time you turned the instrument off: while depressing the sustain (right) pedal, turn on the power.

Connections

(on the rear panel)

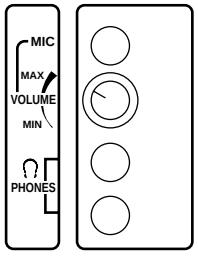


AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a sound generator can be connected to this terminal, and the sound will be output from this instrument's speakers. To receive monaural sound, connect the other instrument to the **R/R+L** terminal. (Do not connect the **L** terminal.)

LINE OUT (output level 1.5 Vrms, 600 Ω)
By connecting an external high-power amplifier, the sound can be reproduced at a high volume. To output monaural sound, connect the external equipment to the **R/R+L** terminal. (Do not connect the **L** terminal.)

MIDI
These terminals are for connection to another MIDI instrument.

(beneath the left end of keyboard)



(**PR703**/**PR903**)

PHONES × 2
Headphones can be connected to this instrument.
- When headphones are plugged into this jack, the speakers of this instrument are disabled.

MIC (**PR703**/**PR903**)
A microphone can be connected to this instrument and the sound output through the speakers. Use the **VOLUME** control to adjust the volume.
- Effects such as reverb can be applied to the microphone input.

COMPUTER
By connecting this terminal to the serial port of a computer, performance data can be exchanged. Use the switch to select the type of computer.
- Be sure that the power to this instrument is turned off when connecting to a computer or when changing the switch setting.

Caution:
Failure to turn off the power before changing the switch setting may result in malfunction.

- When no computer is connected, or when a MIDI interface is used, the switch should be set to **MIDI**.

Connection to a Macintosh series computer
Use an ACCESSORY CABLE (SZ-JJAP1: sold separately) to connect the **COMPUTER** terminal of this instrument to the modem port or printer port of a Macintosh Series computer. Set the switch to **MAC**.
- Set the MIDI interface clock of the Macintosh software to 1 MHz.
- Do not remove the core at either end of the cable.

Connection to a PC
Use an ACCESSORY CABLE (SZ-JJAT1: sold separately) to connect the **COMPUTER** terminal of this instrument to the RS232C terminal of a PC. Set the switch to **PC2**.
- The MIDI driver included with the cable should be installed in the computer. (Refer to the manual accompanying the cable.) This MIDI driver is not compatible with Windows NT or Windows 2000.
- Do not remove the core at either end of the cable.

* All product and company names are trademarks or registered trademarks of thier respective owners.

Symptoms which appear to be signs of trouble

The following changes in performance may occur in the Technics Keyboard but do not indicate trouble.

	Phenomenon	Remedy
Sounds and effects	The buttons, keys, etc. malfunction.	• Turn off the **POWER** button once, then turn it on again. If this procedure is not successful, turn off the **POWER** button once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**SOUL & DISCO**, **GOSPEL & BLUES**, **COUNTRY & WESTERN**) at the same time, turn the **POWER** button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory-preset status.)
	No sound is produced when the keys are pressed.	• The **MAIN VOLUME** is at the minimum setting. Adjust the volume with the **MAIN VOLUME** control. • The volumes for the selected parts are set to the minimum levels. Use the balance buttons to set the volumes of the relevant parts to appropriate levels. • The part is muted. • The LOCAL CONTROL for a part performed on the keyboard is set to OFF. Set the LOCAL CONTROL to ON.
	Only percussive instrument sounds are produced when the keyboard is played.	• In the **SOUND GROUP** section, the **DRUM KITS** button is on.
	The volume is very low when the keyboard is played.	• The volume setting in the **SEQUENCER** contents is very low. Follow the INITIAL procedure to reset the settings.
	The sound you hear is different from the sound you selected.	• This sometimes occurs when you play back **SEQUENCER** or **COMPOSER** data which was created on a different model, or when MIDI data is received from a connected instrument. Select the desired sounds again.
	The sustain does not work even when the sustain pedal is depressed.	• The sustain pedal is not connected. Connect the pedal cord firmly to the **PEDAL IN** terminal on the back of the instrument.
	The sostenuto pedal and soft pedal do not operate properly. For example, when the soft pedal is depressed, the rhythm starts or a fill-in is played.	• Different functions can be programmed in these pedals. You can return the pedals to their original functions by turning off the instrument once, or by using the PEDAL SETTING mode.
Rhythm	The rhythm does not start.	• The **DRUMS** volume is set to the minimum level. Use the balance buttons to set the **DRUMS** volume to an appropriate level. • A **SEQUENCER PLAY** button is on. When you are not playing back the **SEQUENCER** performance, turn off the **SEQUENCER PLAY** button. • CLOCK is set to MIDI. Set CLOCK to INTERNAL.
AUTO PLAY CHORD	No sound is produced for the automatic accompaniment, or only the sounds of some parts are produced.	• An **ACCOMP** part does not sound if its corresponding volume is set to the minimum level. Use the respective balance buttons to set the **ACCOMP 1**-**5** volumes to appropriate levels.
SEQUENCER	Storage is not possible.	• The remaining memory capacity of the **SEQUENCER** is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory.
	The playback measure indication is different from when the performance was recorded.	• The number of measures corresponds to the time signature of the rhythm selected at the start of recording. To change the rhythm in the middle of the song, record the rhythm change in the RHYTHM part.

	Phenomenon	Remedy
COMPOSER	Storage is not possible.	• The remaining memory capacity of the **COMPOSER** is 0.
	Setting the time signature and number of measures is not possible.	• The time signature and number of measures cannot be changed for a pattern which is currently recorded in the **COMPOSER**. If you wish to change the time signature and/or measure data, first follow the procedure to clear the memory.
	The playback timing of the rhythm pattern is different from the timing with which it was recorded.	• The QUANTIZE function was on when the pattern was recorded and the timing was automatically corrected. Set the quantize level to a smaller note unit or to OFF when recording.
Disk Drive	The Disk Drive produces a noise during recording or playback.	• This occurs when the Disk Drive is reading a disk. It does not indicate a problem.
	When the procedure to load from a disk is performed, the contents of the keyboard memory are erased.	• When performing the load operation from a disk, this instrument's memory changes to that of the data loaded from the disk. If you wish to preserve a song which is stored in this instrument's memory, save it on a disk before performing the load procedure.
MIDI	Data cannot be exchanged through MIDI terminals.	• The switch for the **COMPUTER** terminal is not set to **MIDI**. Turn off the power to this instrument and set the switch to **MIDI**. • Match the channels on the transmitting side and the receiving side.
	The sound quavers or is distorted.	• When the **COMPUTER** terminal or both the **MIDI IN** and **OUT** terminals are connected to a computer, depending on the computer software the received data may be sent back to the instrument just as it is. Because of this the sound generated from the keys and the sound generated from the returned data are both produced, causing undesirable effects, such as the sounds canceling each other out, for example. In this case, either change the software settings to prevent received data from being returned, or set the MIDI LOCAL CONTROL to off.
Other	Noise from a radio or TV can be heard.	• This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. • The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center.
	The cabinet becomes warm during use.	• This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

Error messages

No.	Contents
00	The data on the disk that you are using is for a different product.
01	An error has occurred while the disk was loading. Please try again!
02	There is no disk in the Disk Drive.
03	The file that you tried to load is empty.
05	An error has occurred while the disk was saving. Please try again!
06	The disk that you are using is write protected. Please remove the write protection and try again.
07	The disk that you are using is full. Please use another disk.
08	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk.
10	The data is already copy protected.
15	The song you are trying to save is empty.
16	This STANDARD MIDI FILE is incompatible with this instrument and cannot be loaded.
17	This is not a STANDARD MIDI FILE.
18	The timebase (PPQ resolution) that you tried to load is not 24/48/96/192/288/384 PPQ.
20	A problem has occurred with your **SEQUENCER** Data. This might be due to a damaged or faulty disk.
21	Memory full
22	It is necessary to press REC STOP to complete this procedure.
23	It is impossible to change the time signature because it has already been set in the existing tracks.
24	A rhythm track already exists. It is impossible to assign two tracks to rhythm.
25	It is only possible to change the velocity on a melody track.
26	It is only possible to merge melody tracks. Tracks such as rhythm, chord and control cannot be merged.
27	It is only possible to copy melody tracks. Tracks such as rhythm, chord and control cannot be copied.
28	This song is too long to be saved as a MIDI file.
29	The MIDI file that you have tried to load exceeds the memory capacity of this instrument and cannot be played. The **SEQUENCER** memory has been cleared.
30	It is not possible to change the time signature or measure length of a **COMPOSER** pattern after it has been recorded. If you want to proceed, you must first clear the entire **COMPOSER** pattern.

No.	Contents
31	The time signature of the pattern from which you are copying is different from the **COMPOSER** memory that you are using. Either: Change the time signature of the **COMPOSER** memory or: Copy from a pattern that has the same time signature
32	Memory full
33	Select a Track before setting parameters for AUTO PUNCH RECORD.
43	The file that you are trying to load was saved on a previous model. It is only possible to load using the "PERFORMANCE" option.
44	It is impossible to edit a Drum Kit. Please select a different sound from any group except Keyboard Percussion.
46	It is only possible to insert MELODY Tracks. Tracks such as RHYTHM, CHORD and CONTROL cannot be inserted.
47	This procedure is not possible with a composer pattern or the metronome. Please select a preset rhythm pattern.
54	It is not possible to record using preset banks, compile banks, or control banks. Please select one of the user banks.
55	Special tracks such as CHORD (APC), RHY and CTL exist in the song from which you are copying and are incompatible with the destination song because it is in the GM mode.
56	AUTO PUNCH recording has been unsuccessful because SEQUENCER operation was interrupted before the PUNCH OUT measure was reached.
58	The song that you have tried to load exceeds this instrument's available memory and cannot be loaded. The selected song memory has been cleared.
62	The computer connection is not active because the computer port switch is set to MIDI. Please turn the power off, set the switch to the desired setting and turn the power back on.
64	Please select the Panel Memory that you want to name.
65	It is not possible to use the CHORD FINDER in this mode. Please select CHORD FINDER from HOME page or CHORD STEP RECORD page.
66	SOLO pads are special pads which include Chord information. Pleases use SOLO pads when the rhythm and accompaniment is playing.
67	There are no APC or CHORD tracks. Select and APC track or CHORD track, and try again.
68	It is not possible to record directly into the SOLO pads. Record on the SEQUENCER and Copy the melody and chord information into a SOLO pad.
69	It is not possible to delete all measures.
70	It is not possible to insert over 16 measures in a PATTERN.
71	It is not possible to set the start measure to the measures you set to copy.

MIDI Implementation Chart

Digital Ensemble [PR703/PR903]

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1-16	1-16	Assigned to the part.
	Changed	1-16	1-16	
Mode	Default	3	Mode 3	OMNI OFF, POLY MODE
	Messages	Mode 3, 4 (M=1)	Mode 3, 4 (M=1)	*M=1 only
	Altered	—	—	
Note Number		0-127	0-127	
	True voice	—	0-127	
Velocity	Note ON	○	○	
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	○ × *	○ × *	
Pitch Bend		○ × *	○ × *	
Control Change	0,32	○ × *	○ × *	Bank Select MSB, LSB
	1	○ × *	○ × *	Modulation
	5	○	○	Portamento time
	6,38	○ × *	○ × *	Data entry MSB, LSB
	7	○ × *	○ × *	Volume
	10	○ × *	○ × *	Panpot
	11	○ × *	○ × *	Expression
	12,13	○ × *	○ × *	Sound DSP
	64	○ × *	○ × *	Sustain
	65	○	○	Portamento on / off
	66	○	○	Sostenuto
	67	○	○	Soft Pedal
	71~78	○ × *	○ × *	Sound controllers
	80~83	○	○	Part Equalizer
	91~95	○ × *	○ × *	Effect 1~5 Depth
	98,99	○ × *	○ × *	NRPN
	100,101	○ × *	○ × *	RPN
Prog Change		○ × *	○ × *	
	True #	—	0-127	
System exclusive		○ × *	○ × *	
System common	Song Pos	○ × *	○ × *	
	Song Sel	○ × *	○ × *	
	Tune	×	×	
System Real Time	Clock	○ × *	○ × *	
	Commands	○ × *	○ × *	Start / Stop, continue
Aux Messages	Local ON / OFF	×	×	
	All notes OFF	×	○	
	Active Sense	○	○	
	Reset	×	×	
Notes		○ × * ····· Whether or not the data for each of these items is transmitted / received can be set.		

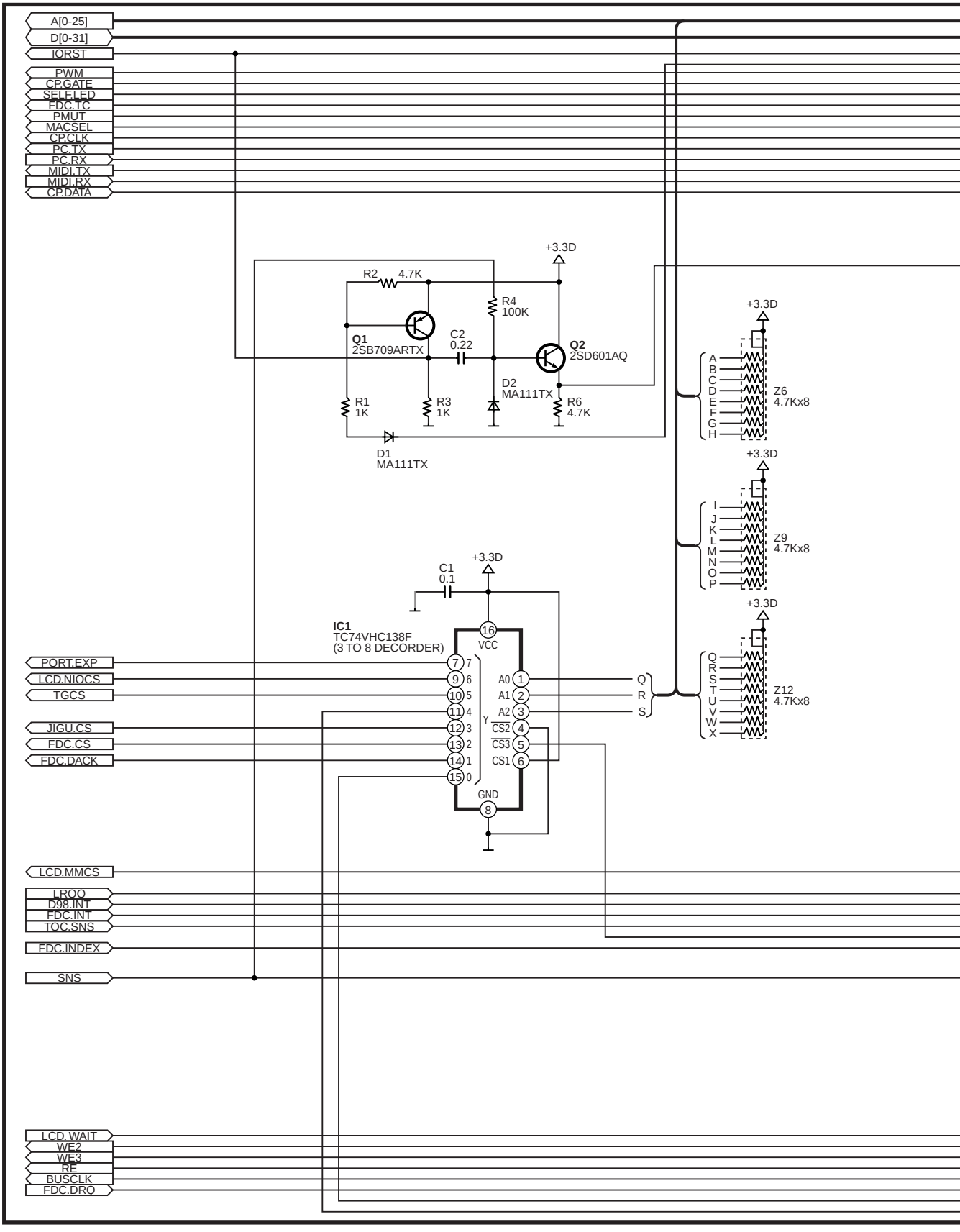
Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO ○: Yes

Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO ×: No

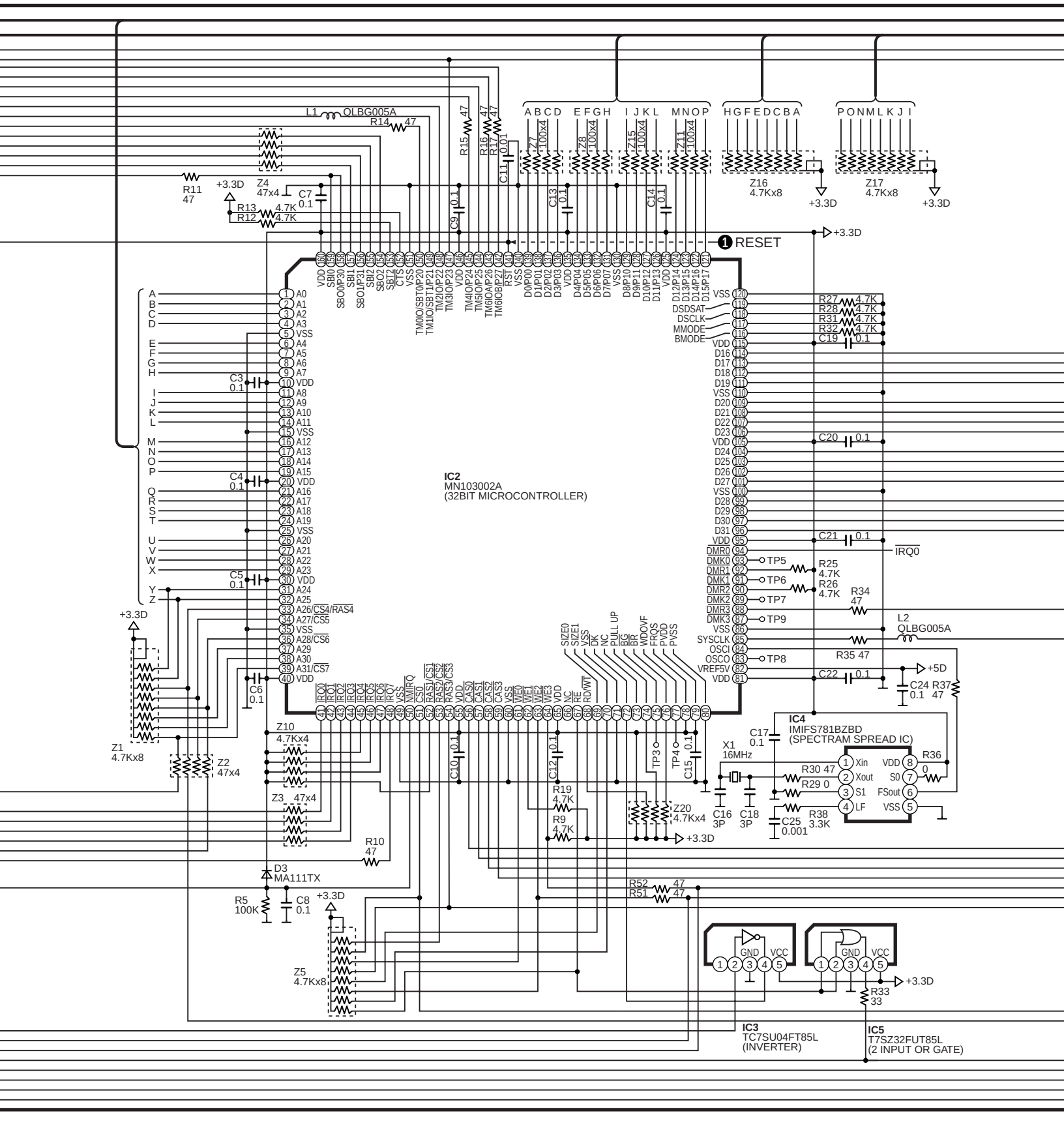
SCHEMATIC DIAGRAM-1

NOTE:
The number which noted at the connectors on the schematic diagram as
"SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2"
indicates the schematic diagram serial number located on the left corner in the schematic diagram.

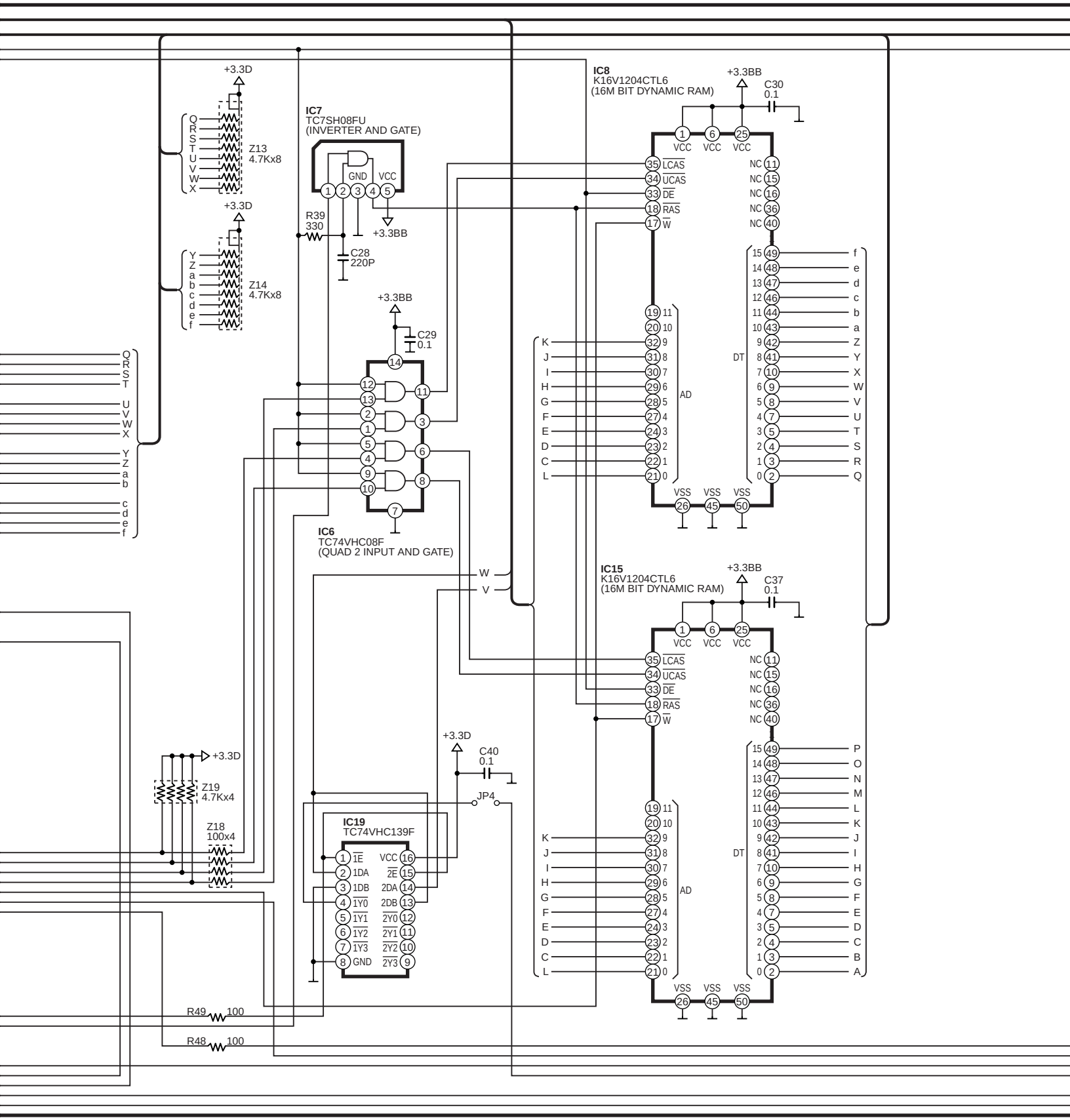
A MAIN 1/4 CIRCUIT



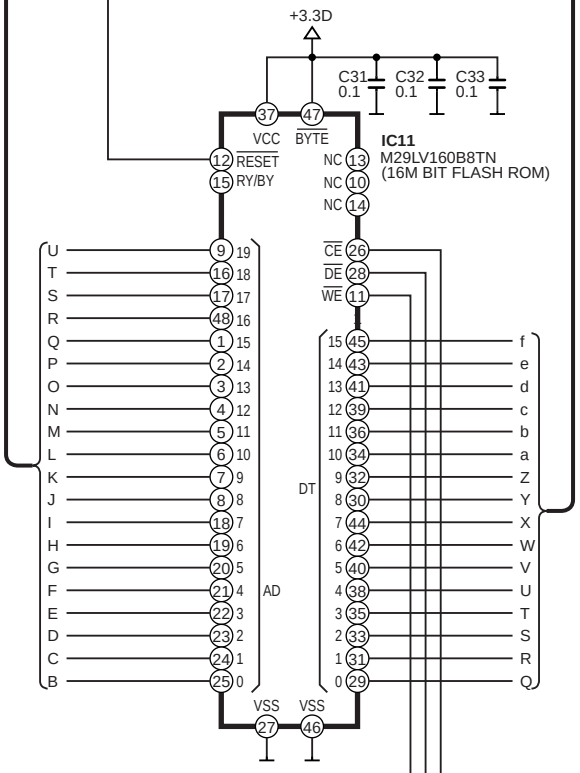
SCHEMATIC DIAGRAM-2



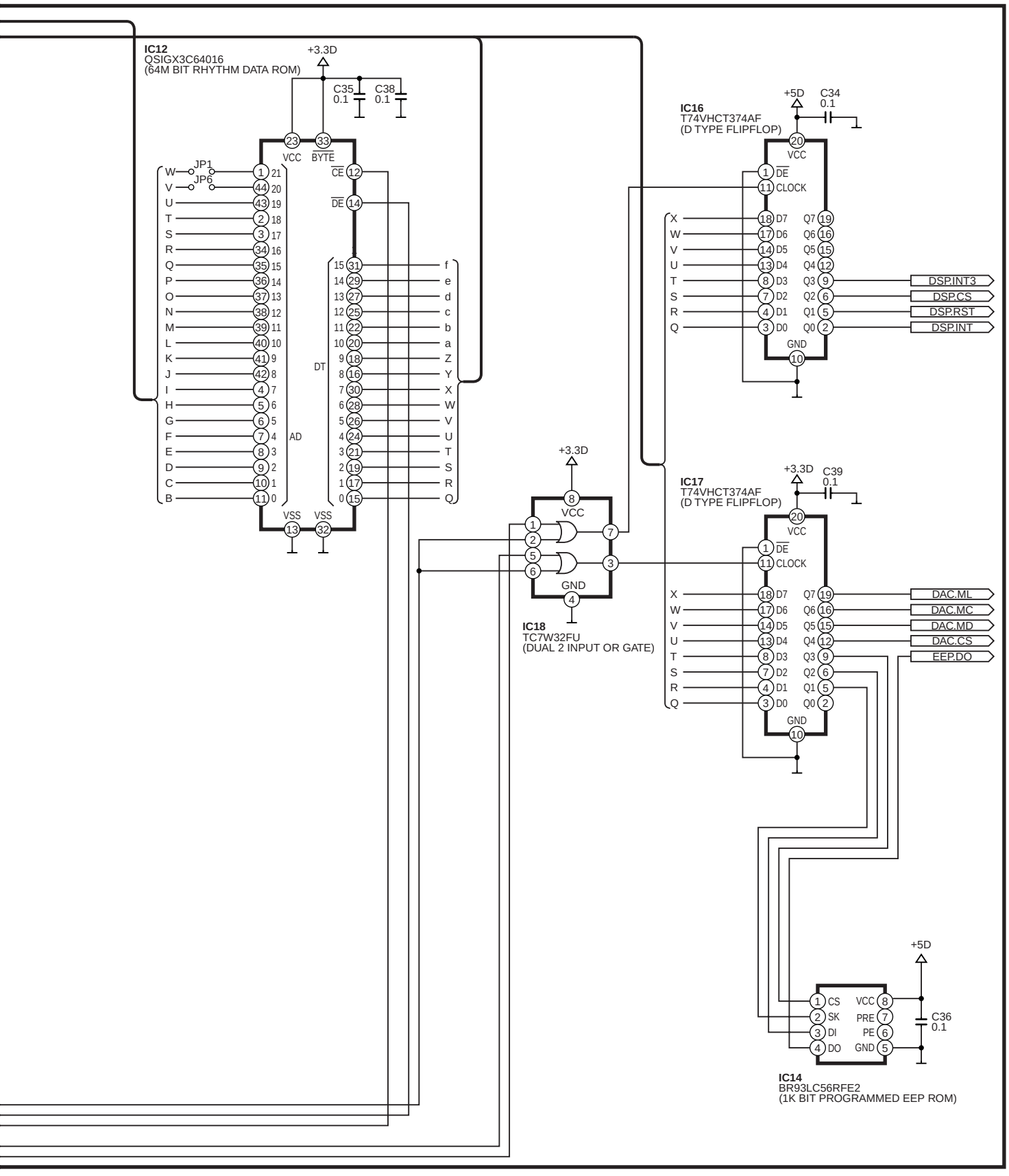
SCHEMATIC DIAGRAM-3



SCHEMATIC DIAGRAM-4

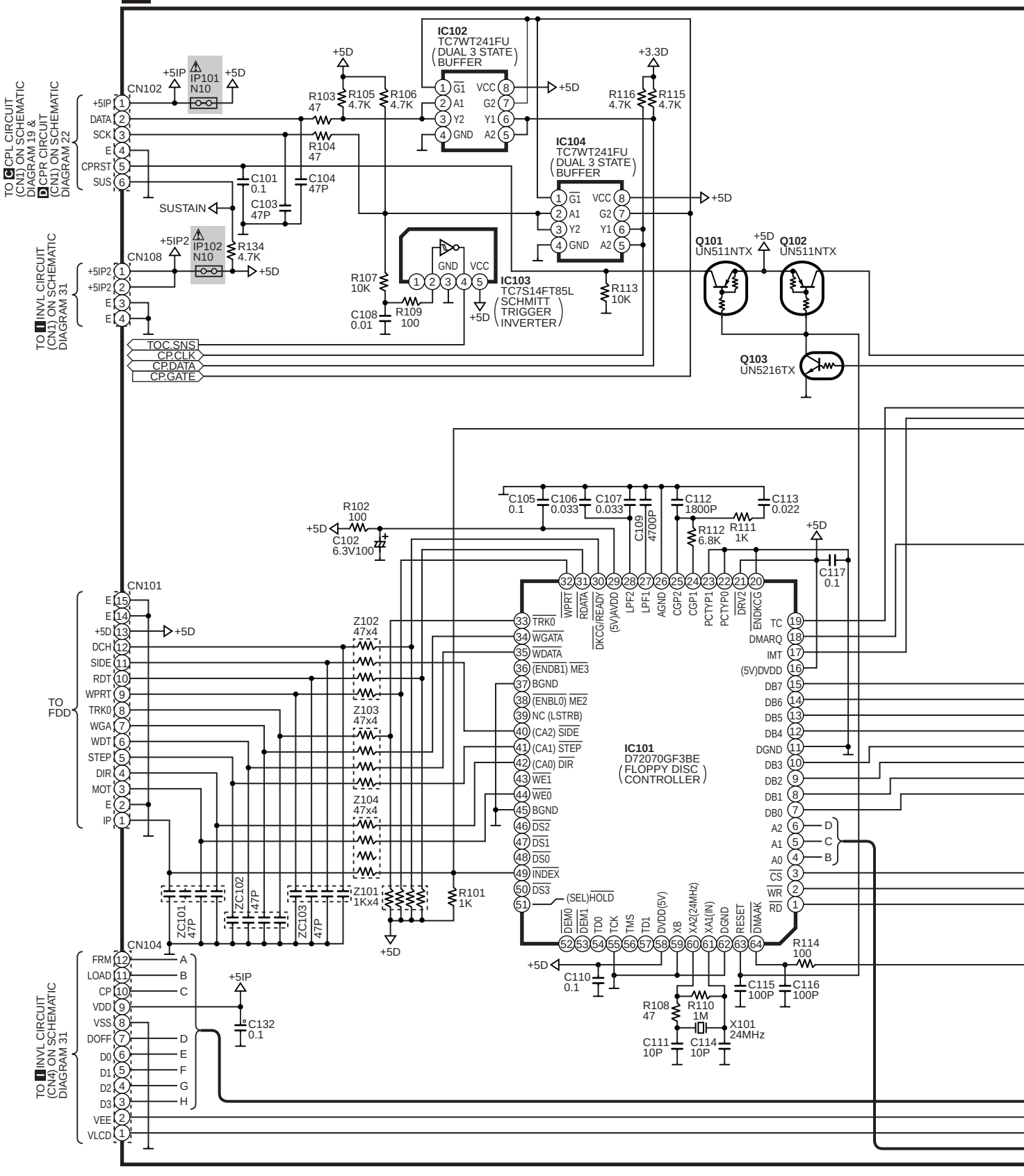


SCHEMATIC DIAGRAM-5

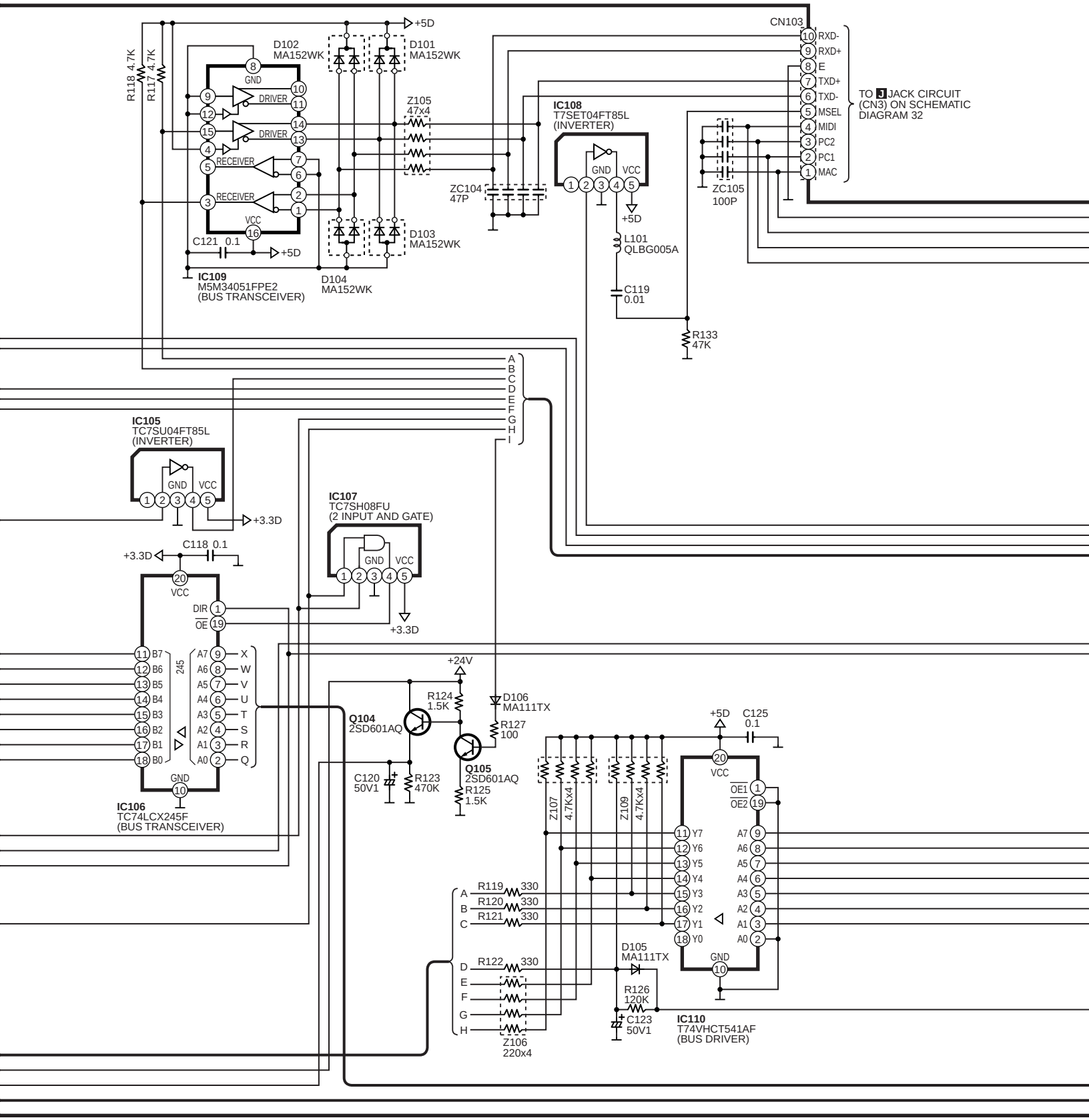


SCHEMATIC DIAGRAM-6

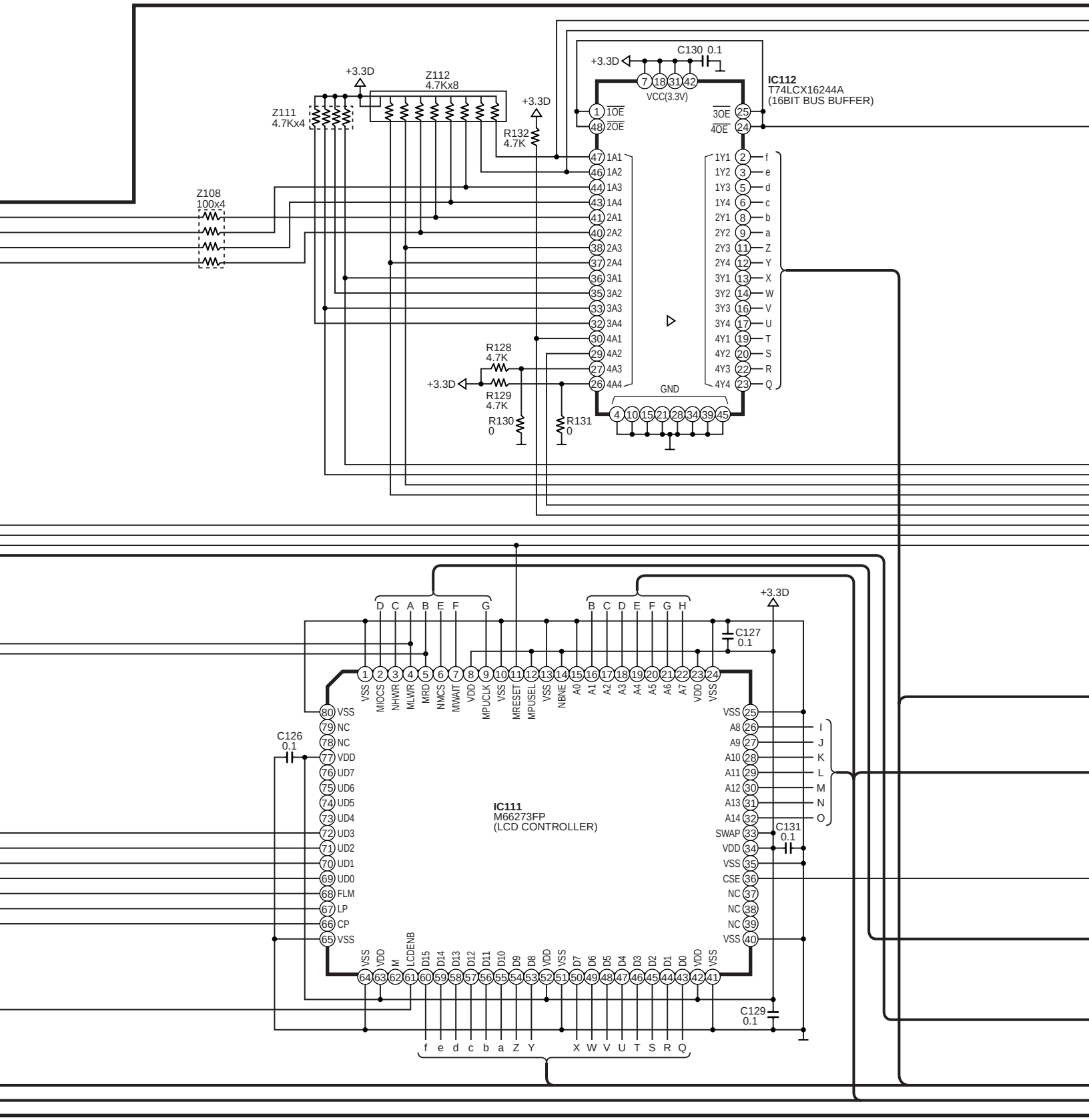
A MAIN 2/4 CIRCUIT



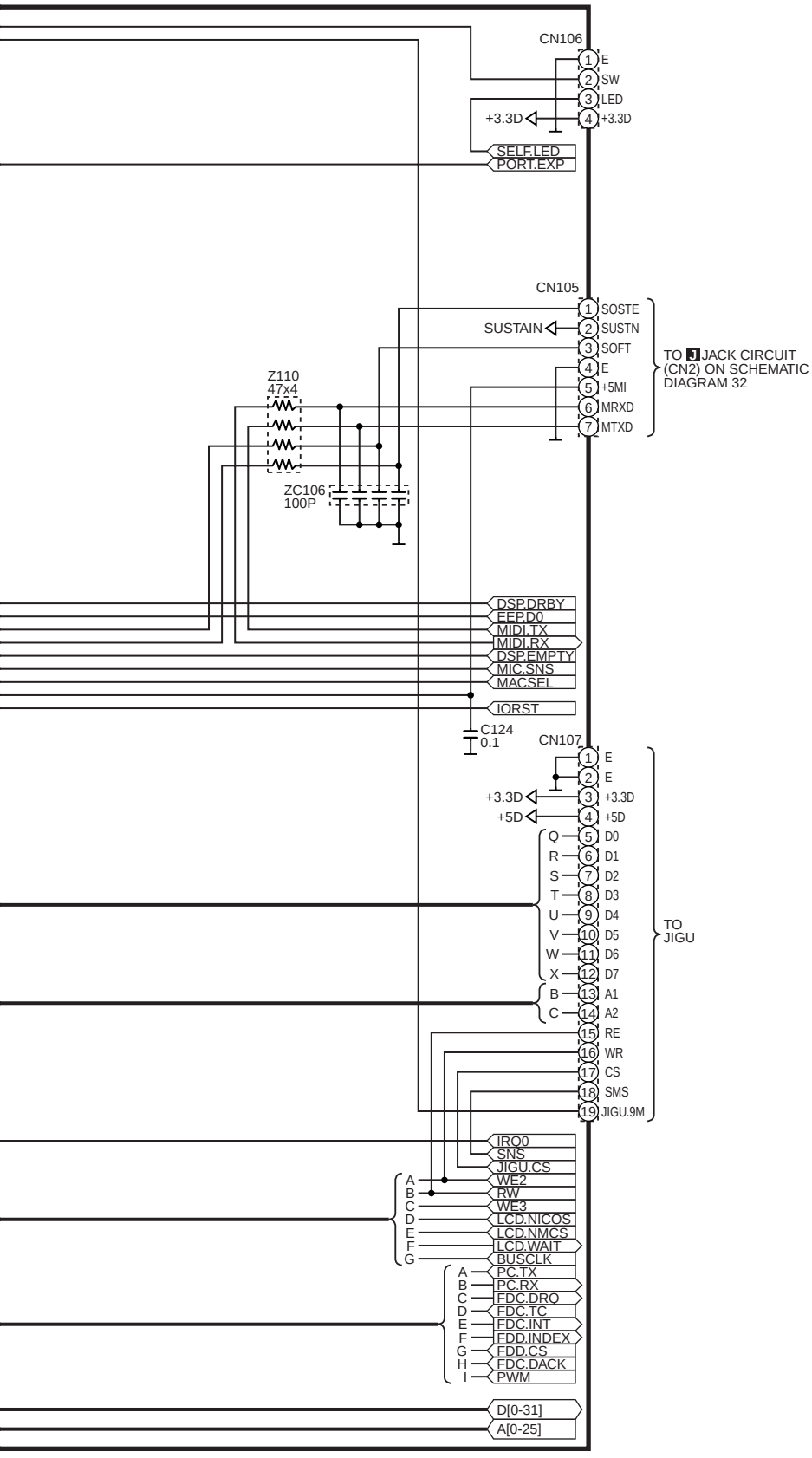
SCHEMATIC DIAGRAM-7



SCHEMATIC DIAGRAM-8

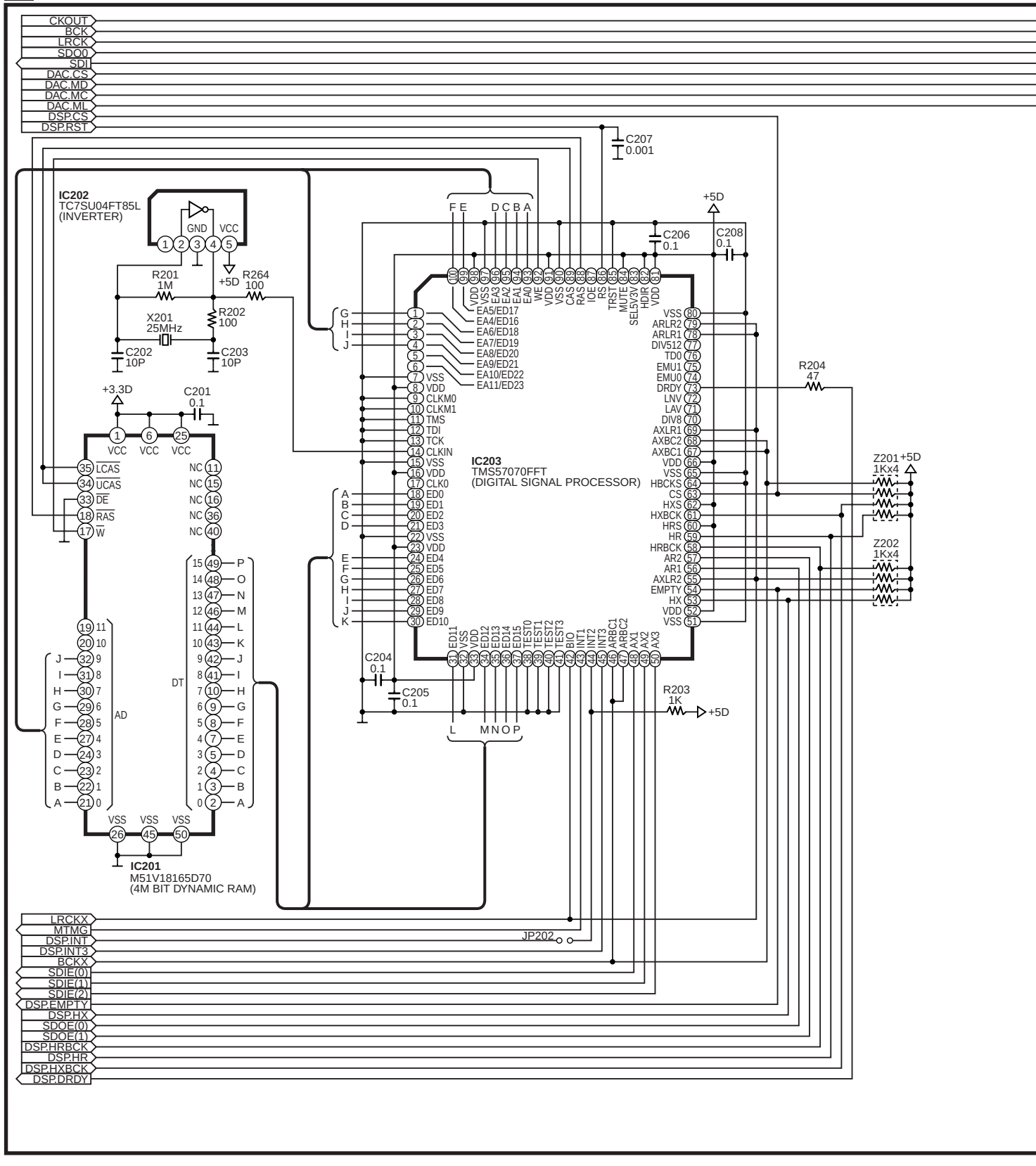


SCHEMATIC DIAGRAM-9

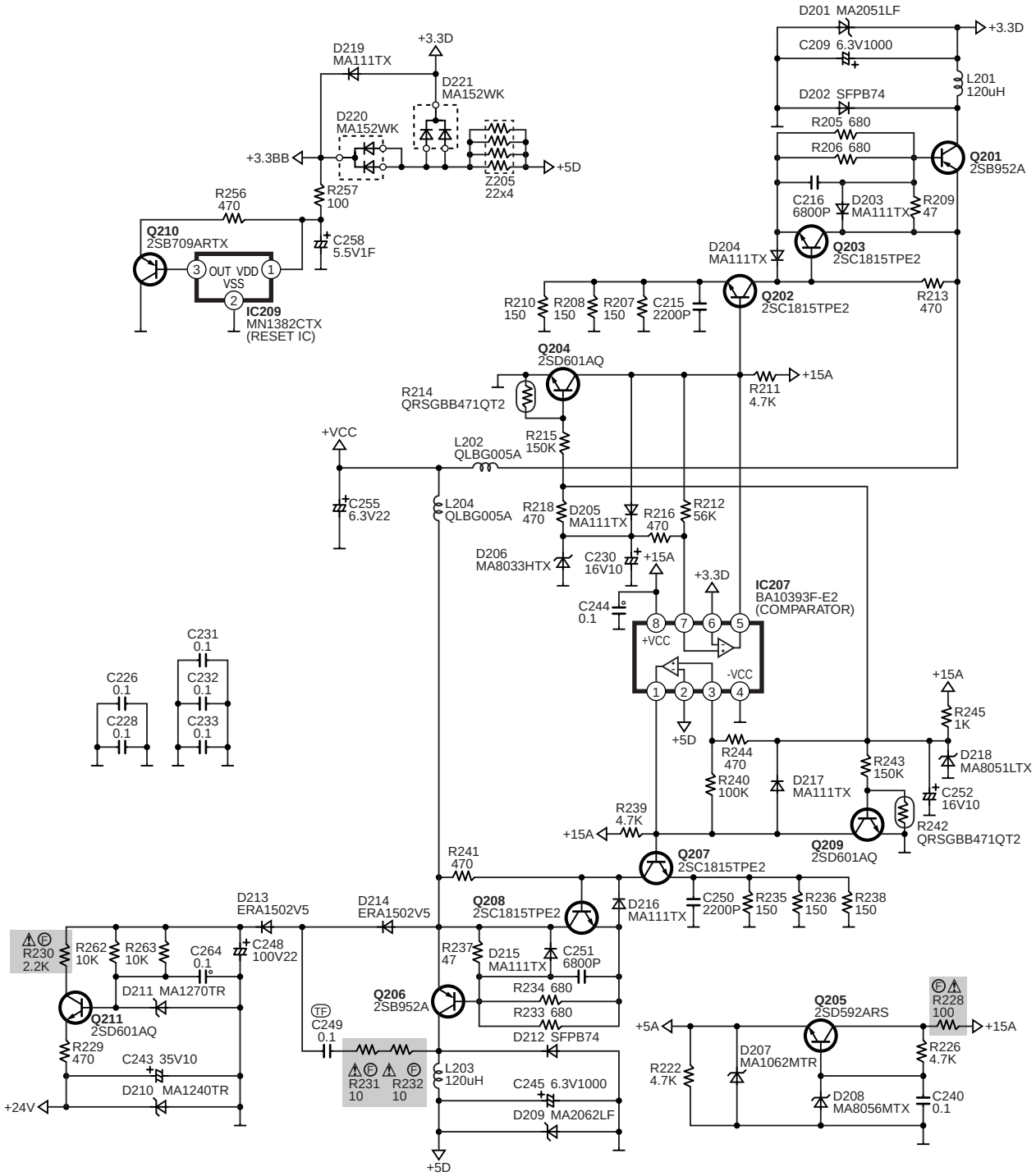


SCHEMATIC DIAGRAM-10

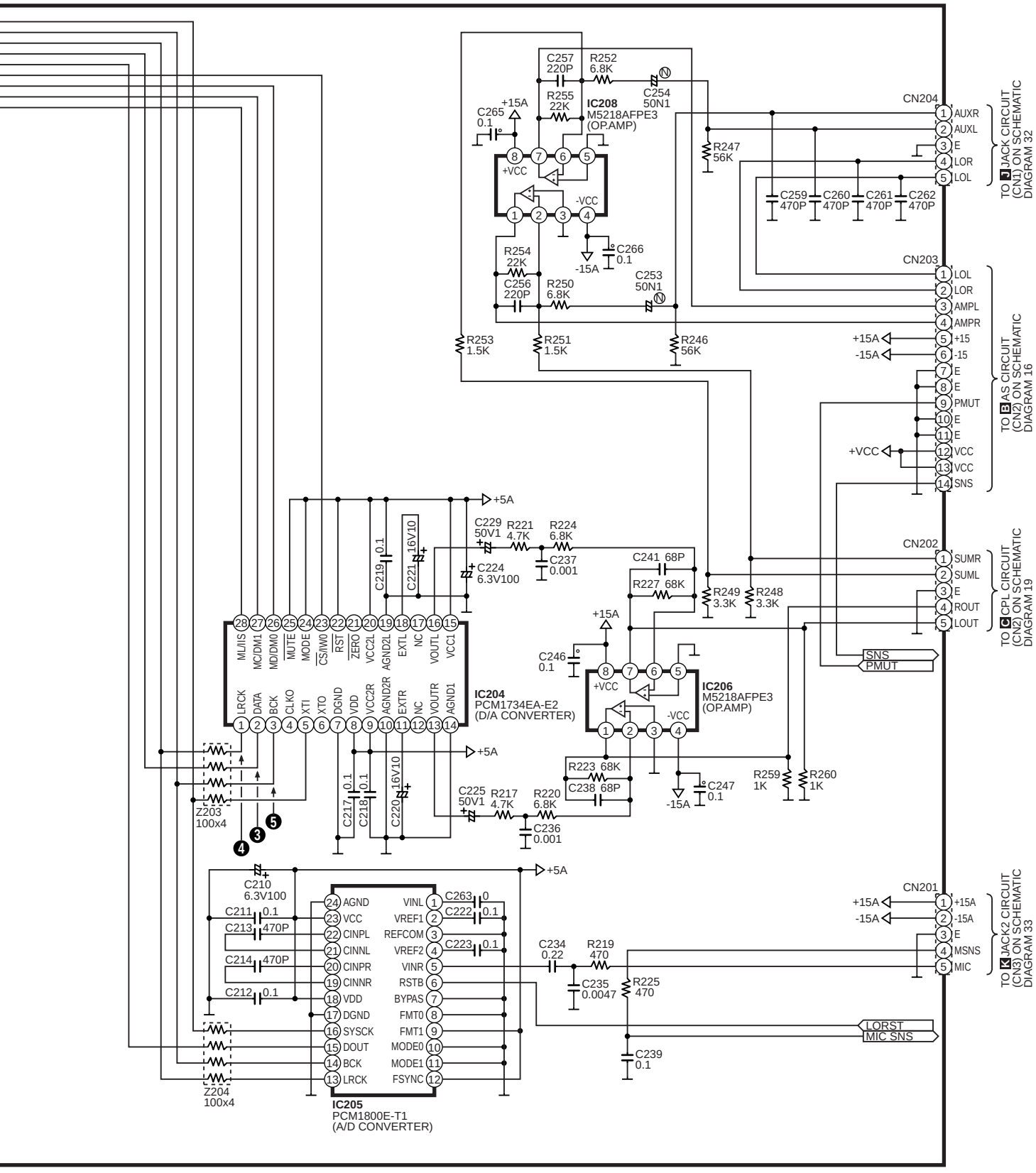
A MAIN 3/4 CIRCUIT



SCHEMATIC DIAGRAM-11

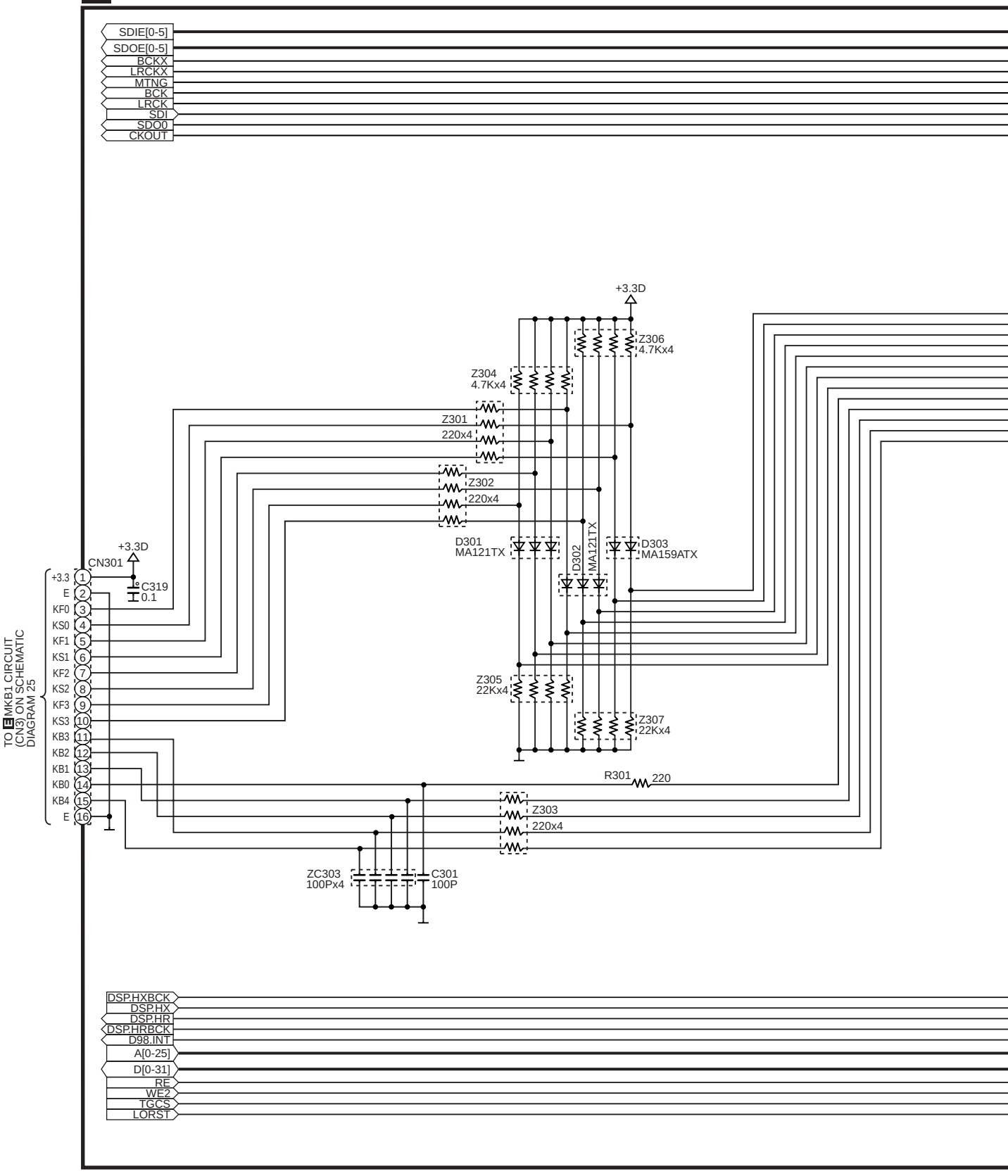


SCHEMATIC DIAGRAM-12

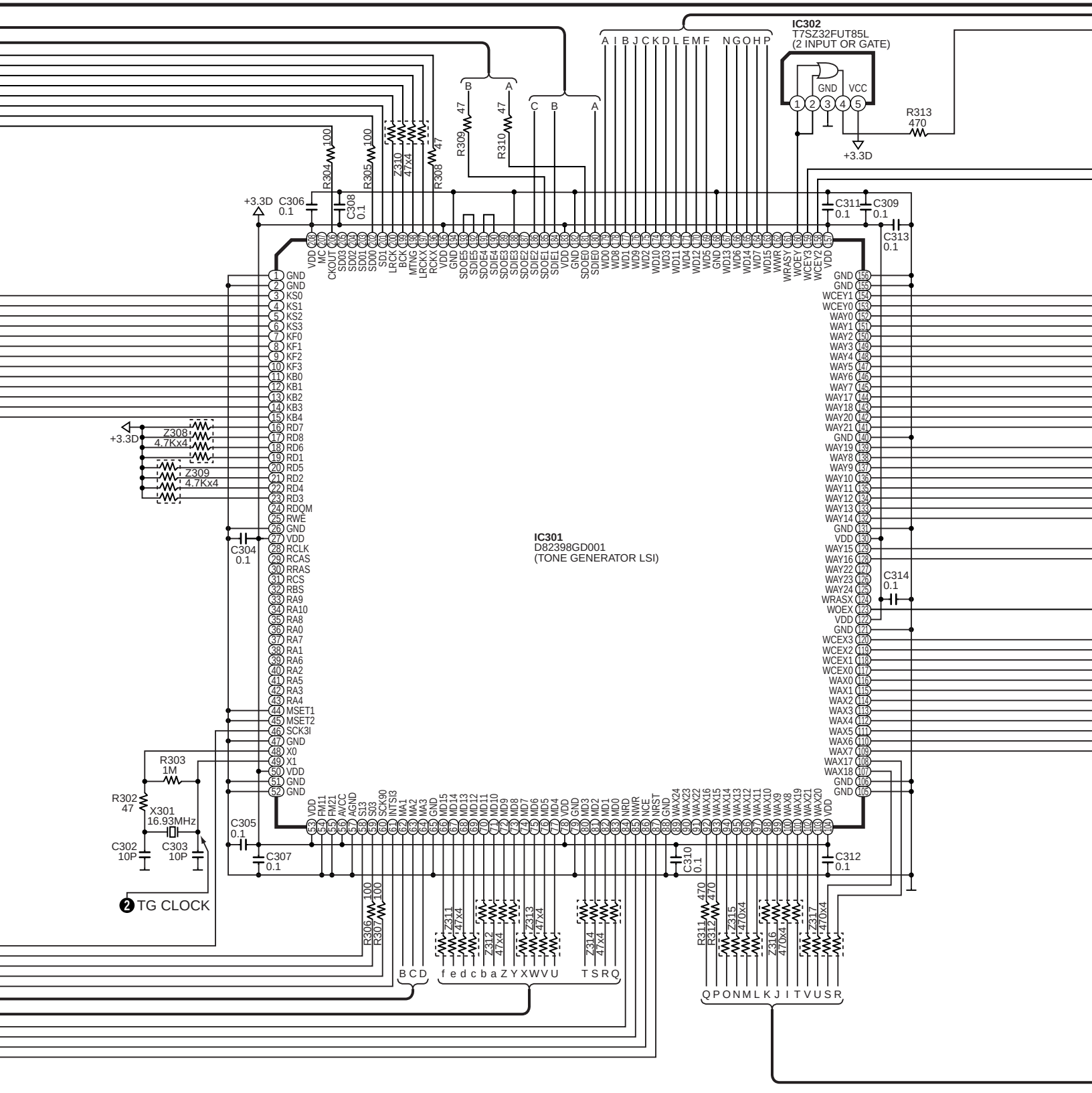


SCHEMATIC DIAGRAM-13

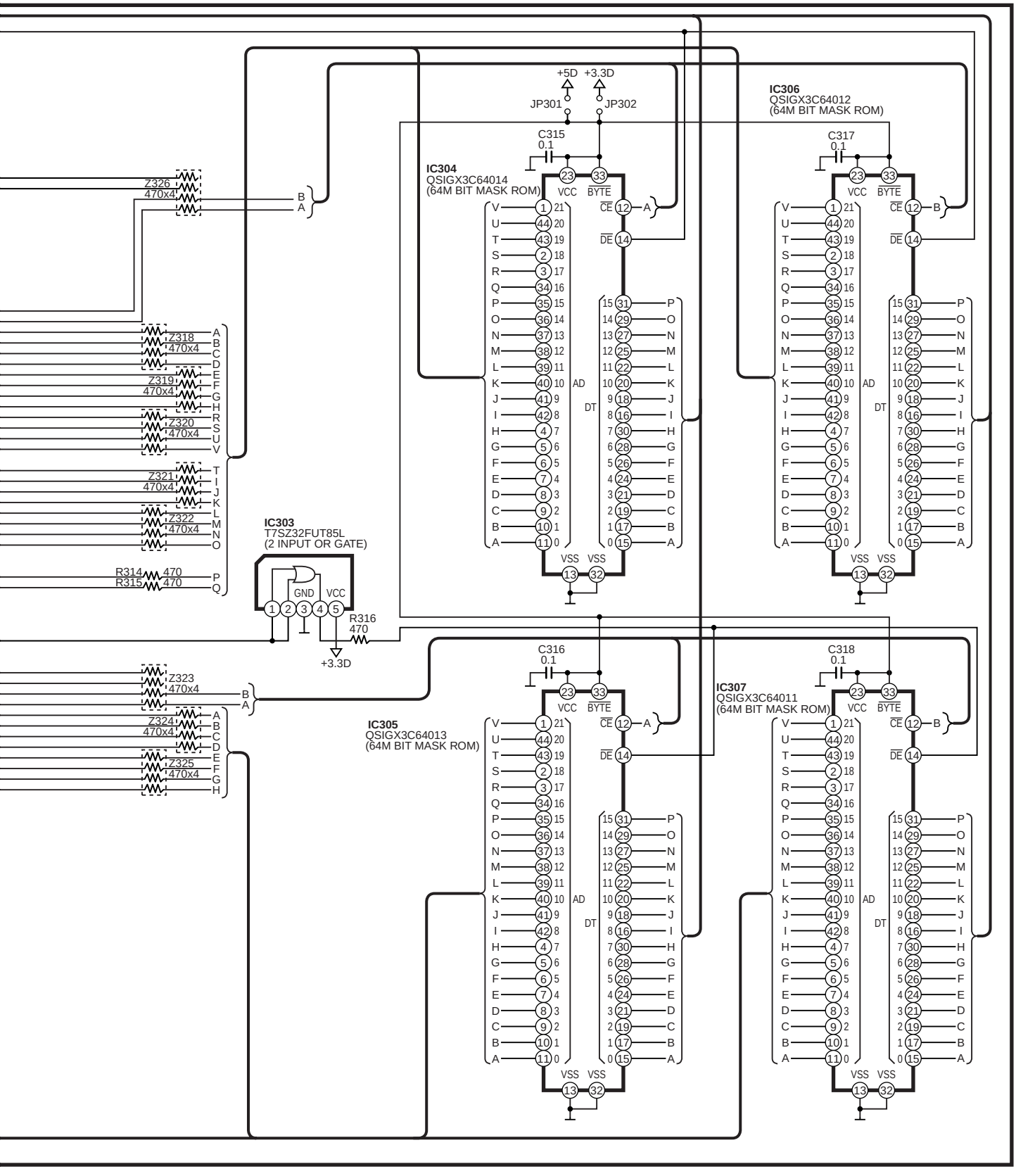
A MAIN 4/4 CIRCUIT



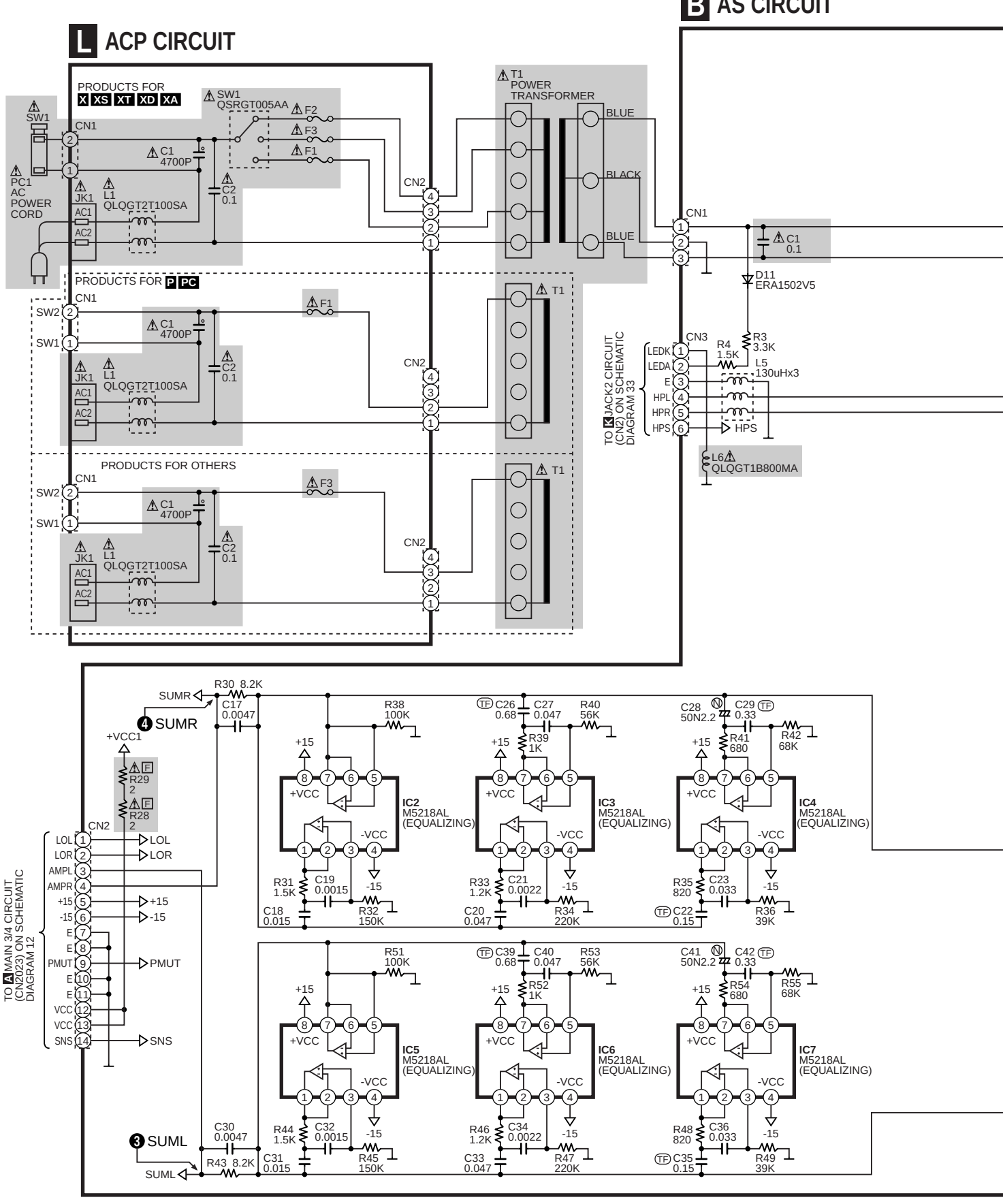
SCHEMATIC DIAGRAM-14



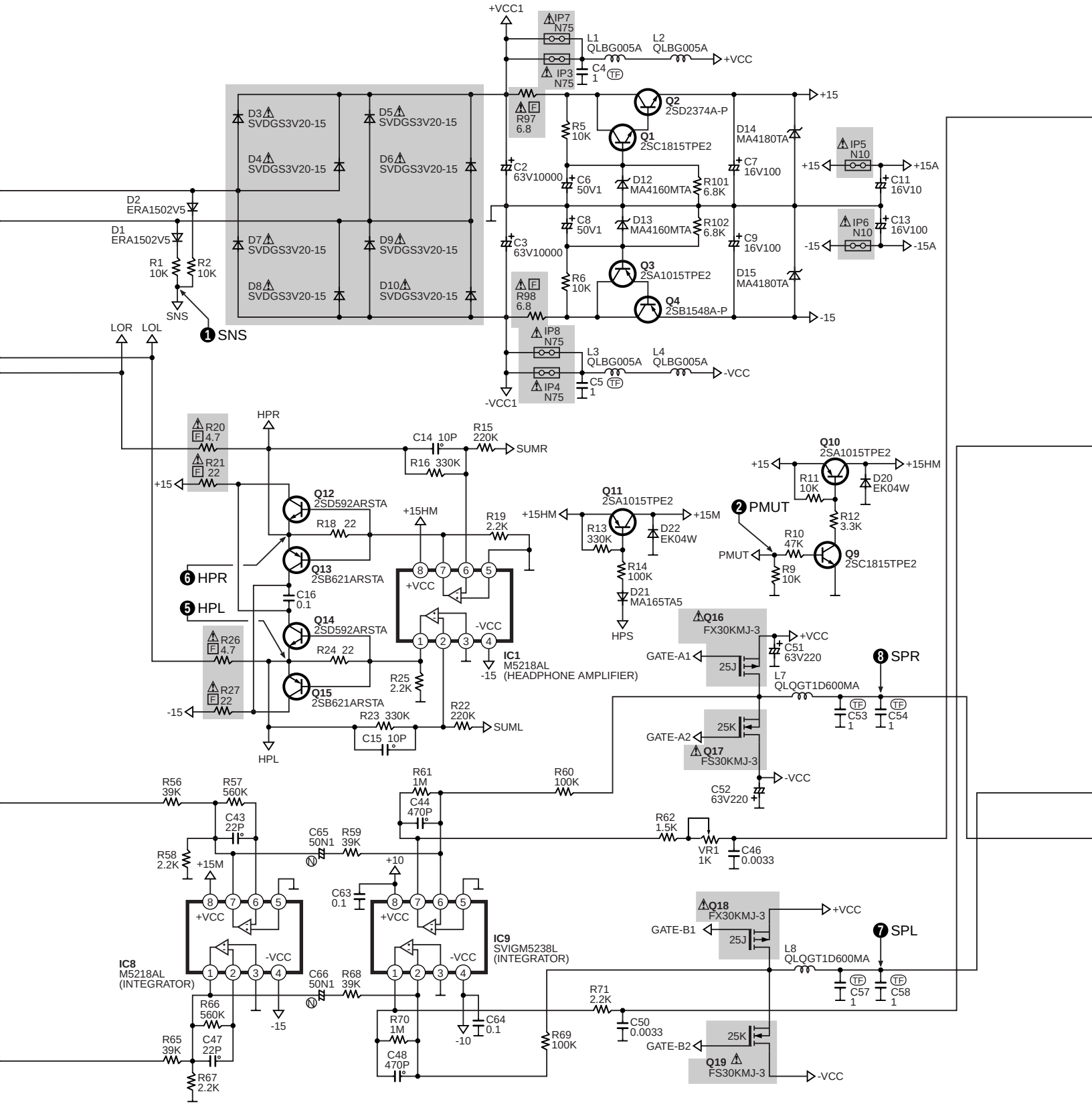
SCHEMATIC DIAGRAM-15



SCHEMATIC DIAGRAM-16

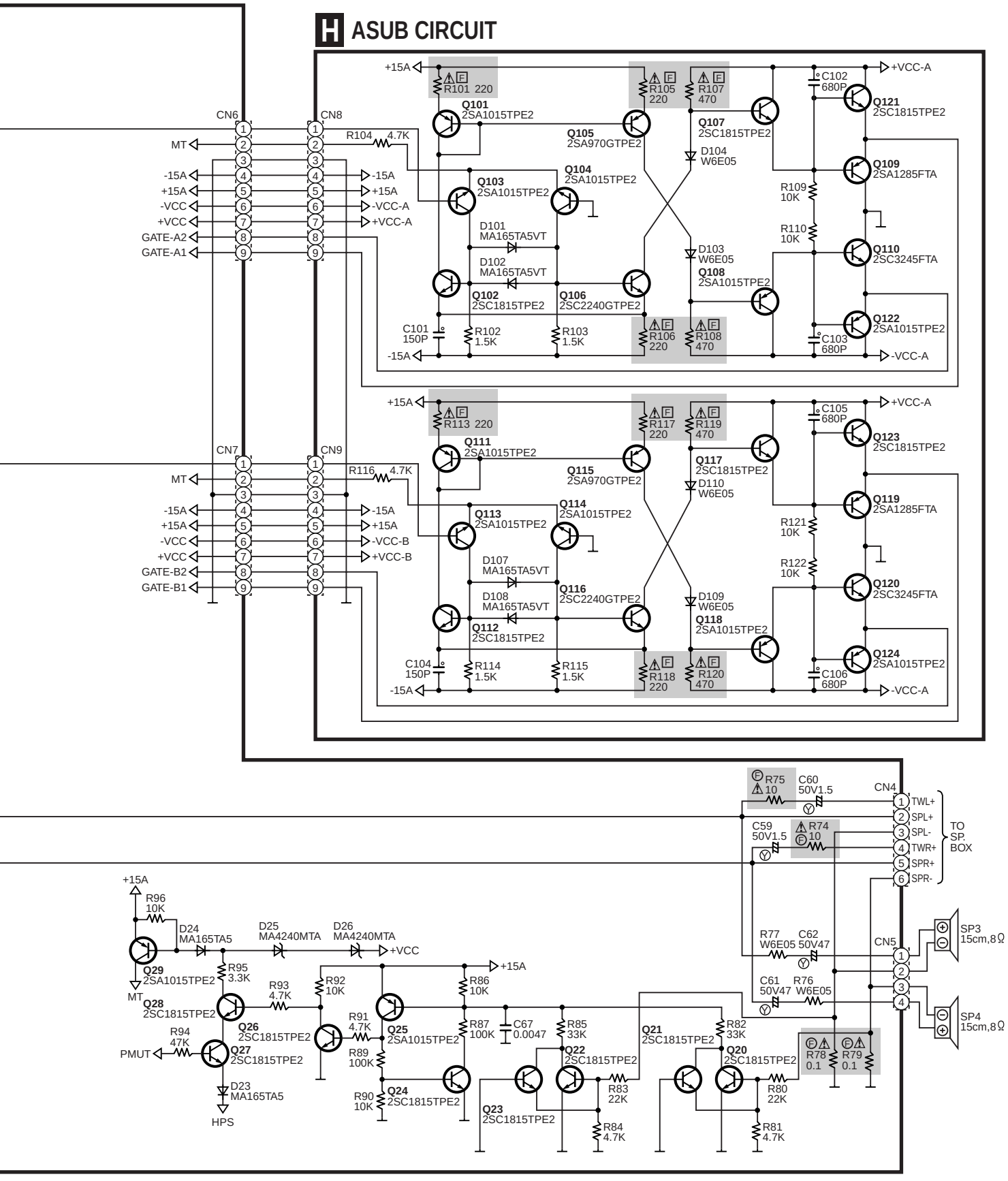


SCHEMATIC DIAGRAM-17



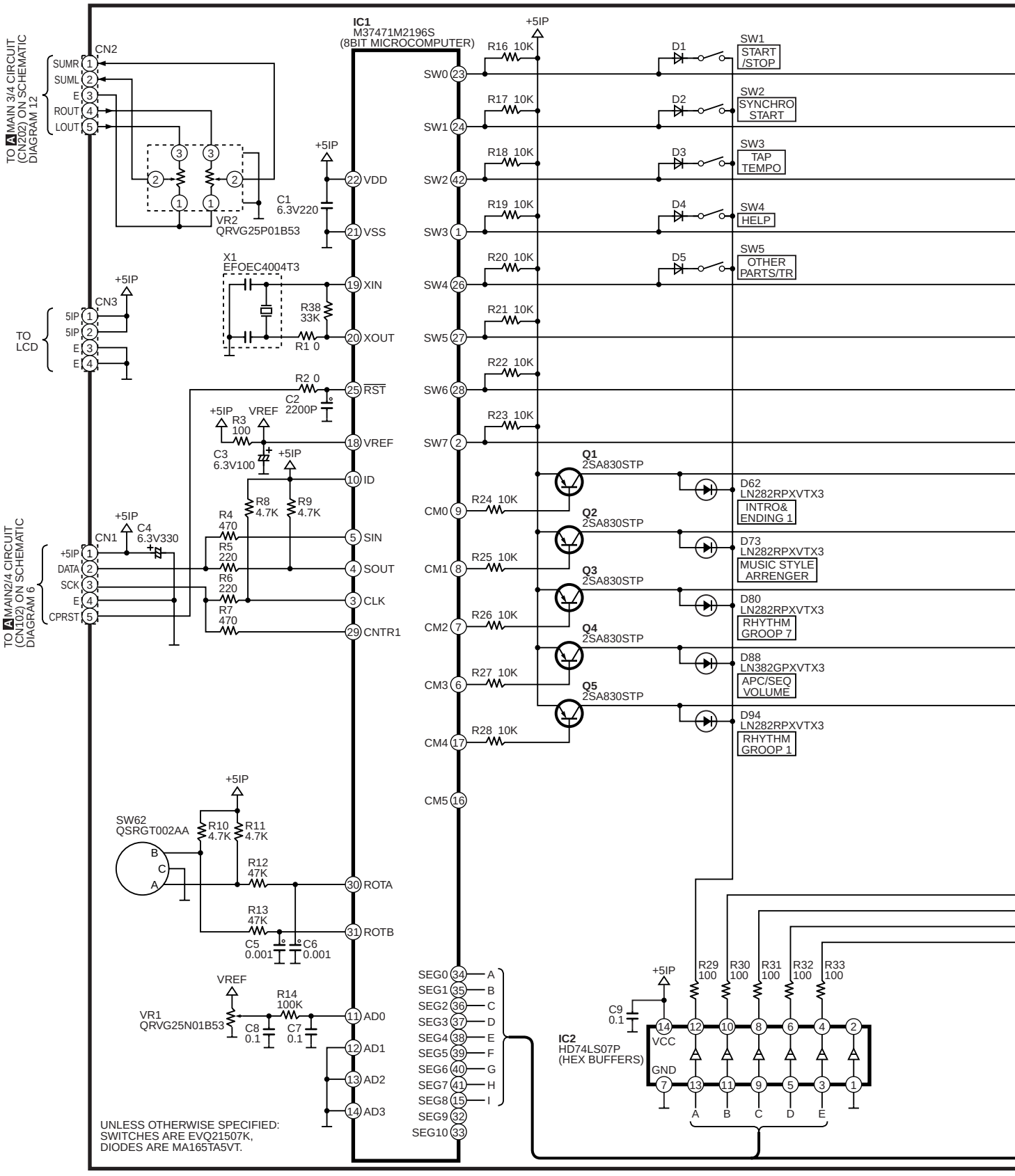
SCHEMATIC DIAGRAM-18

H ASUB CIRCUIT

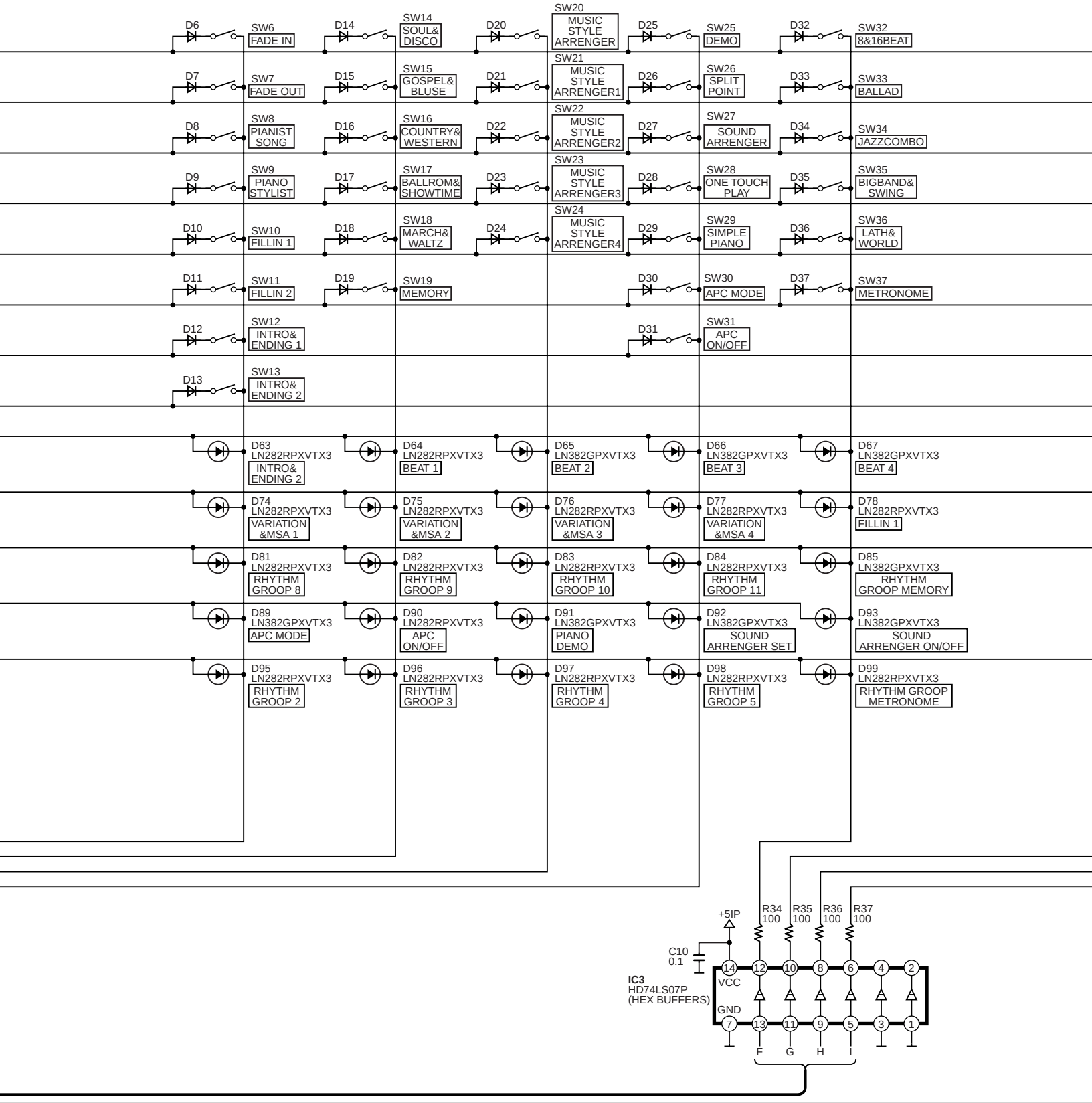


SCHEMATIC DIAGRAM-19

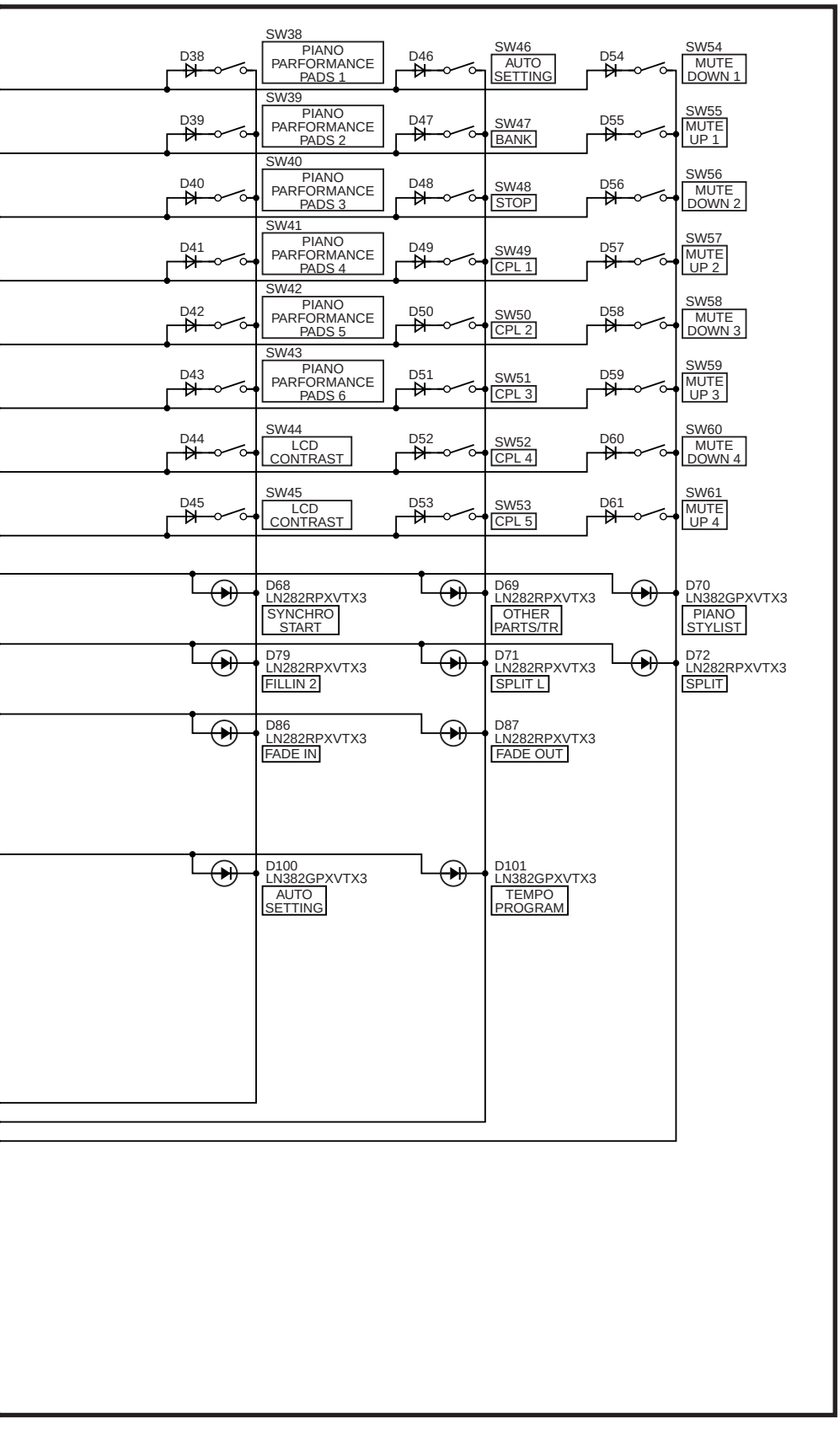
C CPL CIRCUIT



SCHEMATIC DIAGRAM-20

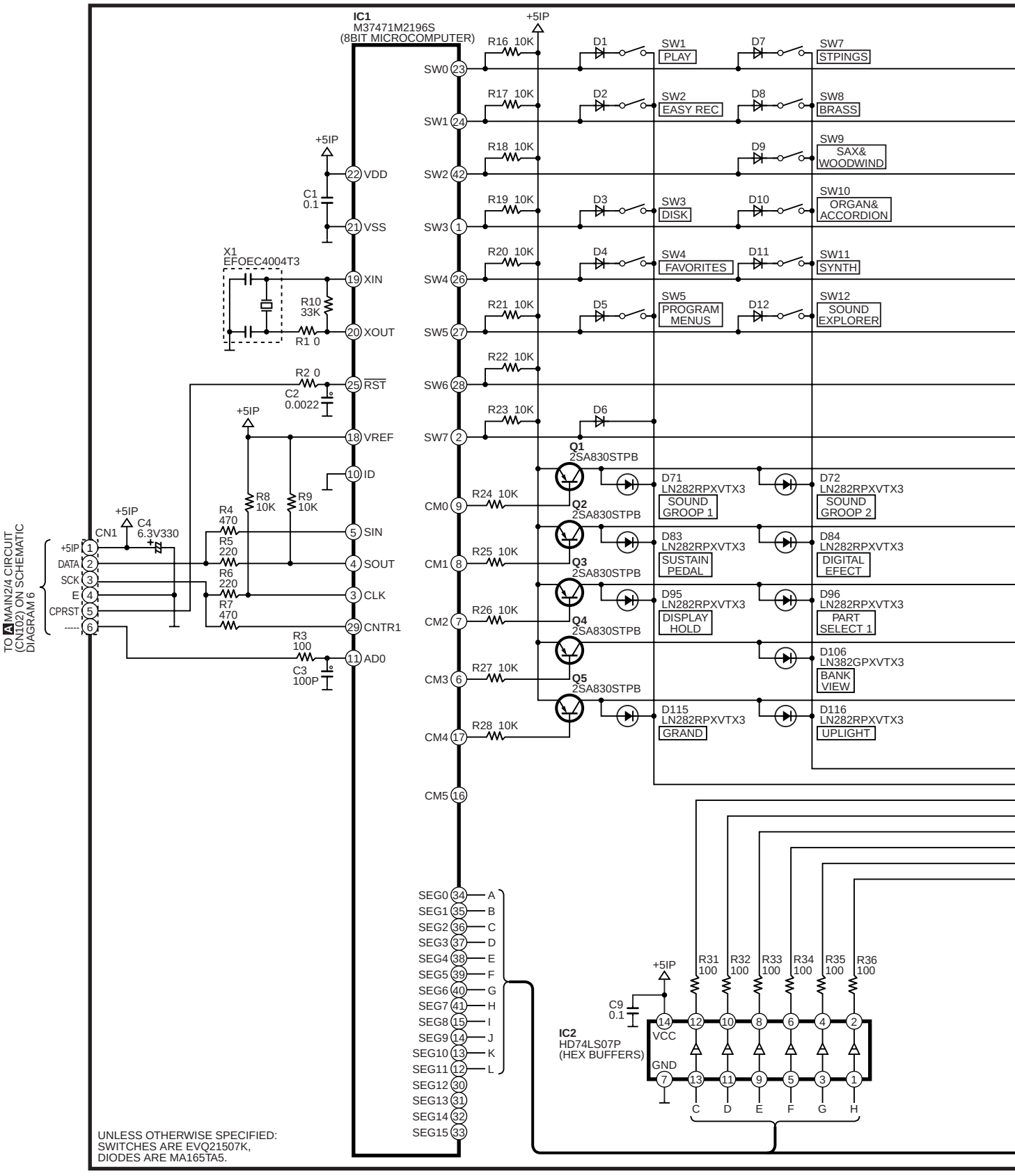

D6 SW6 FADE IN
D7 SW7 FADE OUT
D8 SW8 PIANIST SONG
D9 SW9 PIANO STYLIST
D10 SW10 FILLIN 1
D11 SW11 FILLIN 2
D12 SW12 INTRO& ENDING 1
D13 SW13 INTRO& ENDING 2
D14 SW14 SOUL& DISCO
D15 SW15 GOSPEL& BLUSE
D16 SW16 COUNTRY& WESTERN
D17 SW17 BALLROM& SHOWTIME
D18 SW18 MARCH& WALTZ
D19 SW19 MEMORY
D20 SW20 MUSIC STYLE ARRENGER
D21 SW21 MUSIC STYLE ARRENGER1
D22 SW22 MUSIC STYLE ARRENGER2
D23 SW23 MUSIC STYLE ARRENGER3
D24 SW24 MUSIC STYLE ARRENGER4
D25 SW25 DEMO
D26 SW26 SPLIT POINT
D27 SW27 SOUND ARRENGER
D28 SW28 ONE TOUCH PLAY
D29 SW29 SIMPLE PIANO
D30 SW30 APC MODE
D31 SW31 APC ON/OFF
D32 SW32 8&16BEAT
D33 SW33 BALLAD
D34 SW34 JAZZCOMBO
D35 SW35 BIGBAND& SWING
D36 SW36 LATH& WORLD
D37 SW37 METRONOME
D63 LN282RPXVTX3 INTRO& ENDING 2
D64 LN282RPXVTX3 BEAT 1
D65 LN382GPXVTX3 BEAT 2
D66 LN382GPXVTX3 BEAT 3
D67 LN382GPXVTX3 BEAT 4
D74 LN282RPXVTX3 VARIATION &MSA 1
D75 LN282RPXVTX3 VARIATION &MSA 2
D76 LN282RPXVTX3 VARIATION &MSA 3
D77 LN282RPXVTX3 VARIATION &MSA 4
D78 LN282RPXVTX3 FILLIN 1
D81 LN282RPXVTX3 RHYTHM GROOP 8
D82 LN282RPXVTX3 RHYTHM GROOP 9
D83 LN282RPXVTX3 RHYTHM GROOP 10
D84 LN282RPXVTX3 RHYTHM GROOP 11
D85 LN382GPXVTX3 RHYTHM GROOP MEMORY
D89 LN382GPXVTX3 APC MODE
D90 LN282RPXVTX3 APC ON/OFF
D91 LN382GPXVTX3 PIANO DEMO
D92 LN382GPXVTX3 SOUND ARRENGER SET
D93 LN382GPXVTX3 SOUND ARRENGER ON/OFF
D95 LN282RPXVTX3 RHYTHM GROOP 2
D96 LN282RPXVTX3 RHYTHM GROOP 3
D97 LN282RPXVTX3 RHYTHM GROOP 4
D98 LN282RPXVTX3 RHYTHM GROOP 5
D99 LN282RPXVTX3 RHYTHM GROOP METRONOME
+5IP
R34 100
R35 100
R36 100
R37 100
C10 0.1
IC3 HD74LS07P (HEX BUFFERS)
VCC
GND
14 12 10 8 6 4 2
7 13 11 9 5 3 1
F G H I

SCHEMATIC DIAGRAM-21

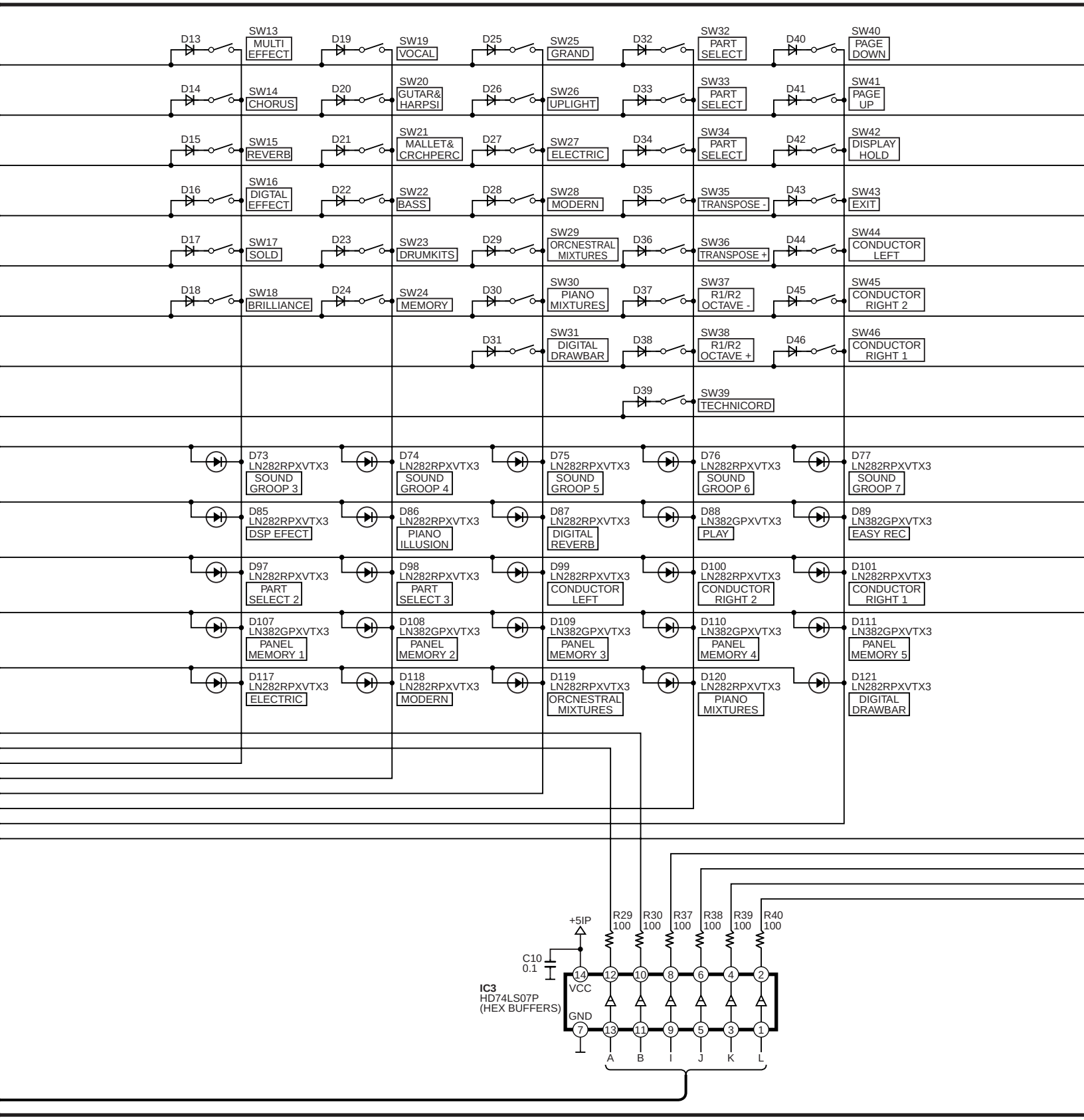


SCHEMATIC DIAGRAM-22

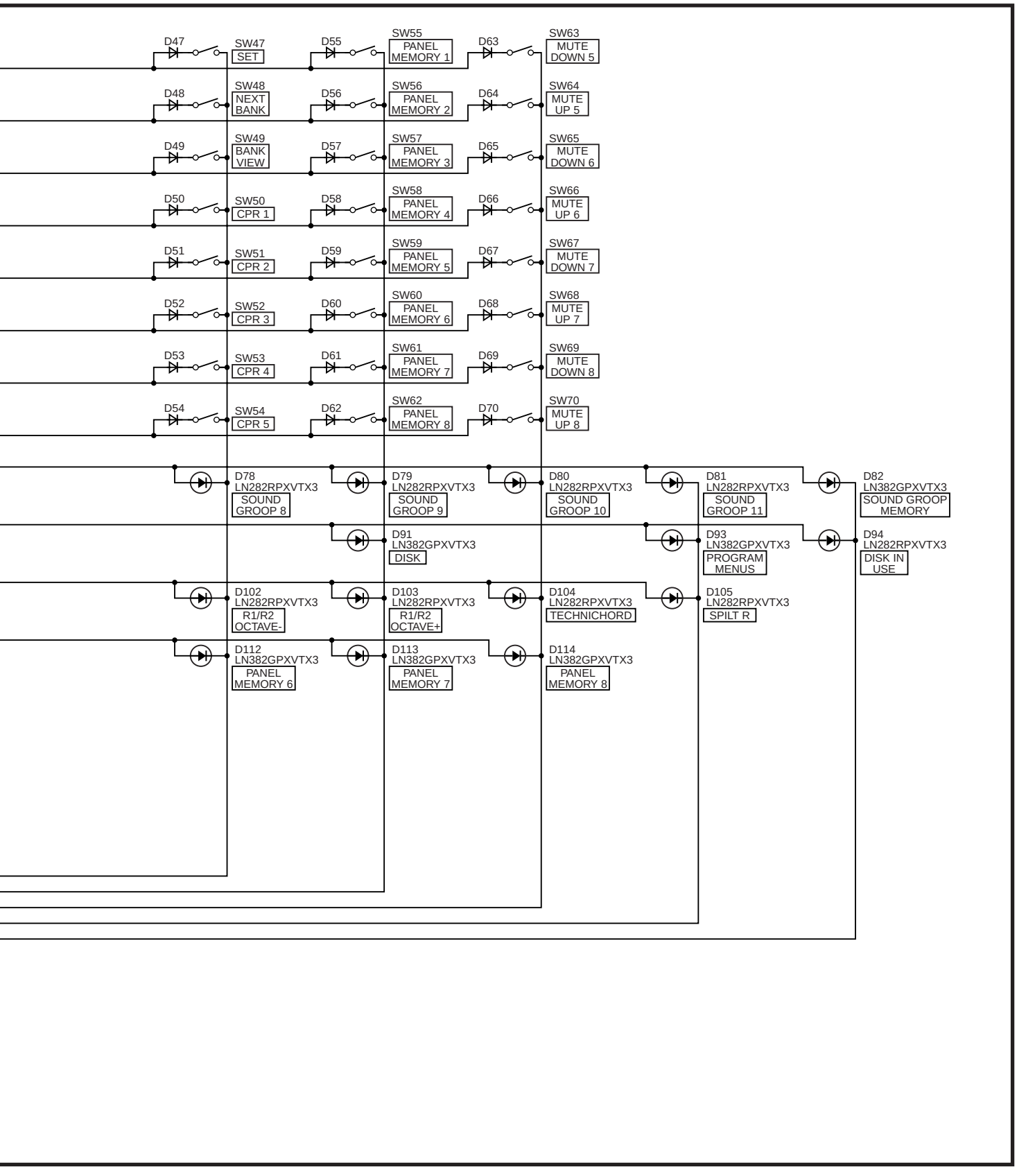
D CPR CIRCUIT



SCHEMATIC DIAGRAM-23

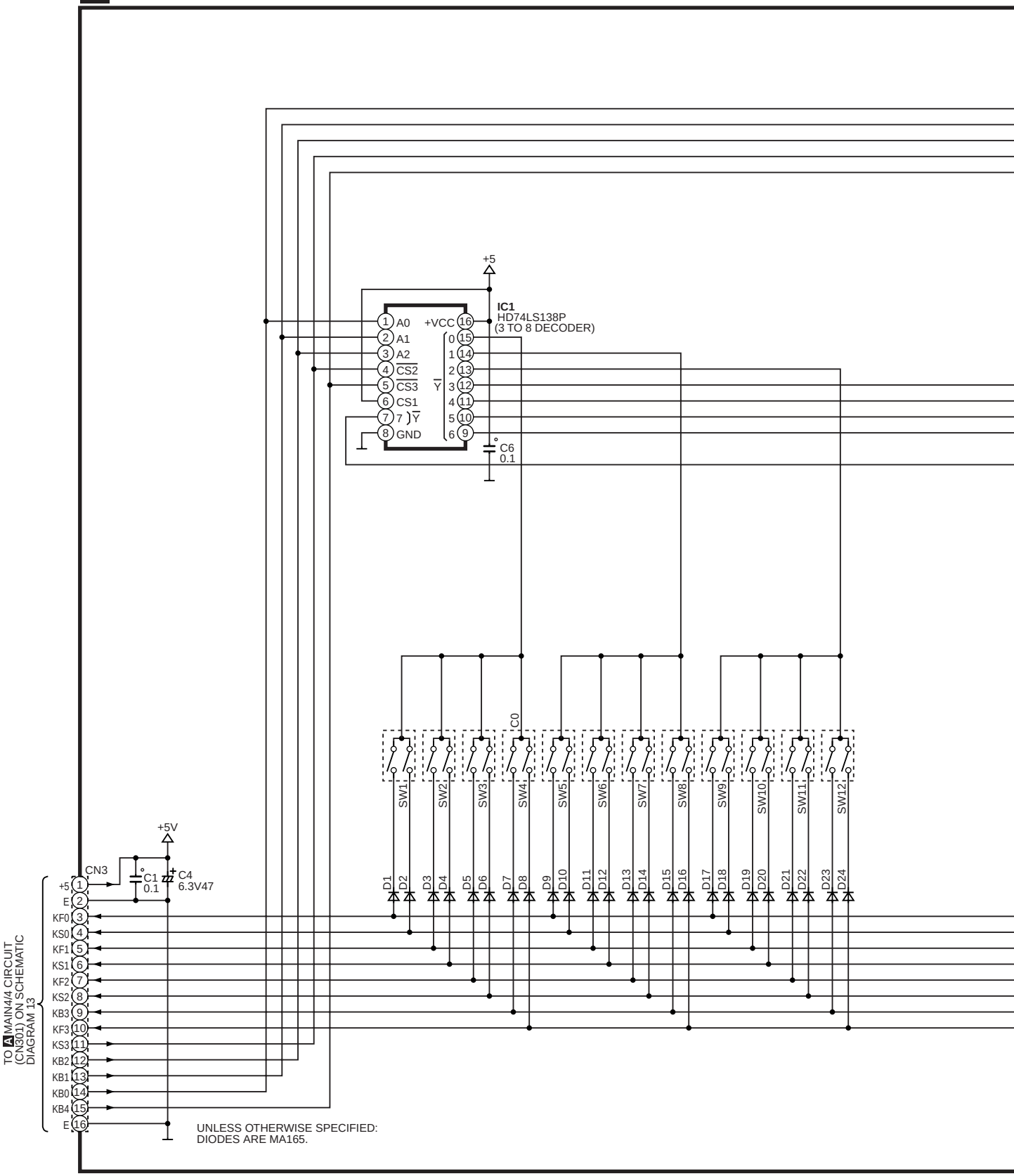


SCHEMATIC DIAGRAM-24

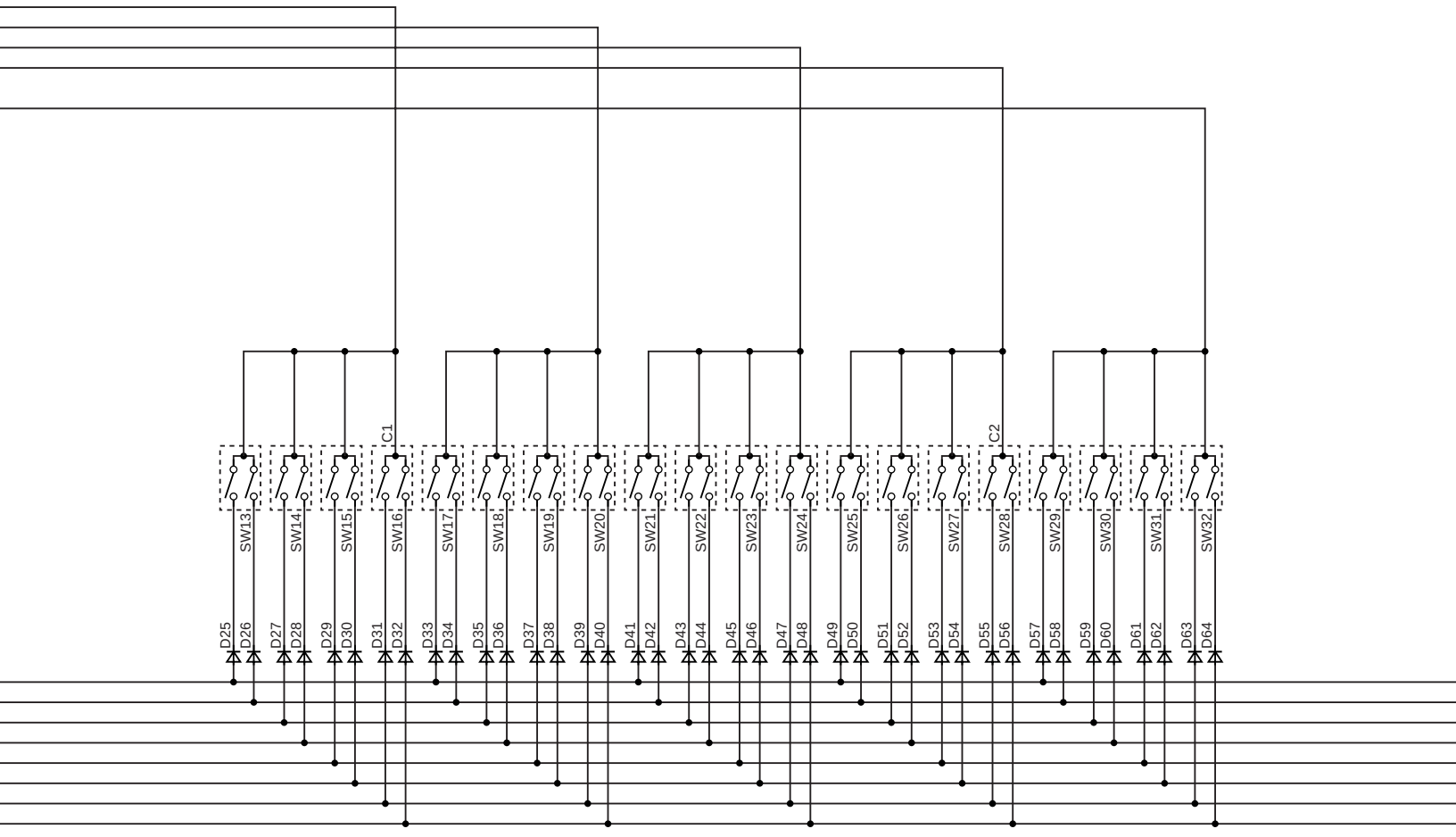


SCHEMATIC DIAGRAM-25

E MKB1 CIRCUIT

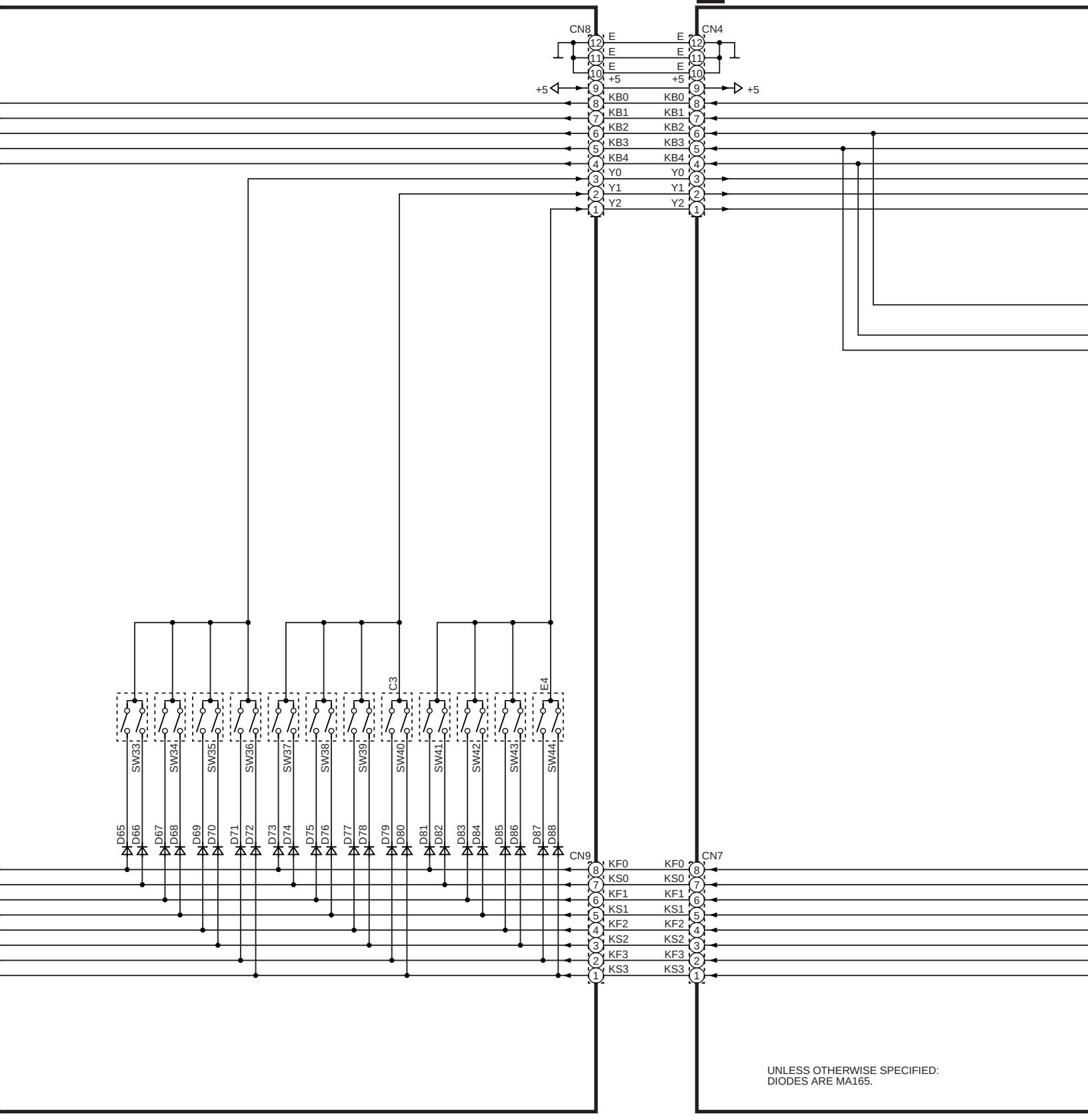


SCHEMATIC DIAGRAM-26



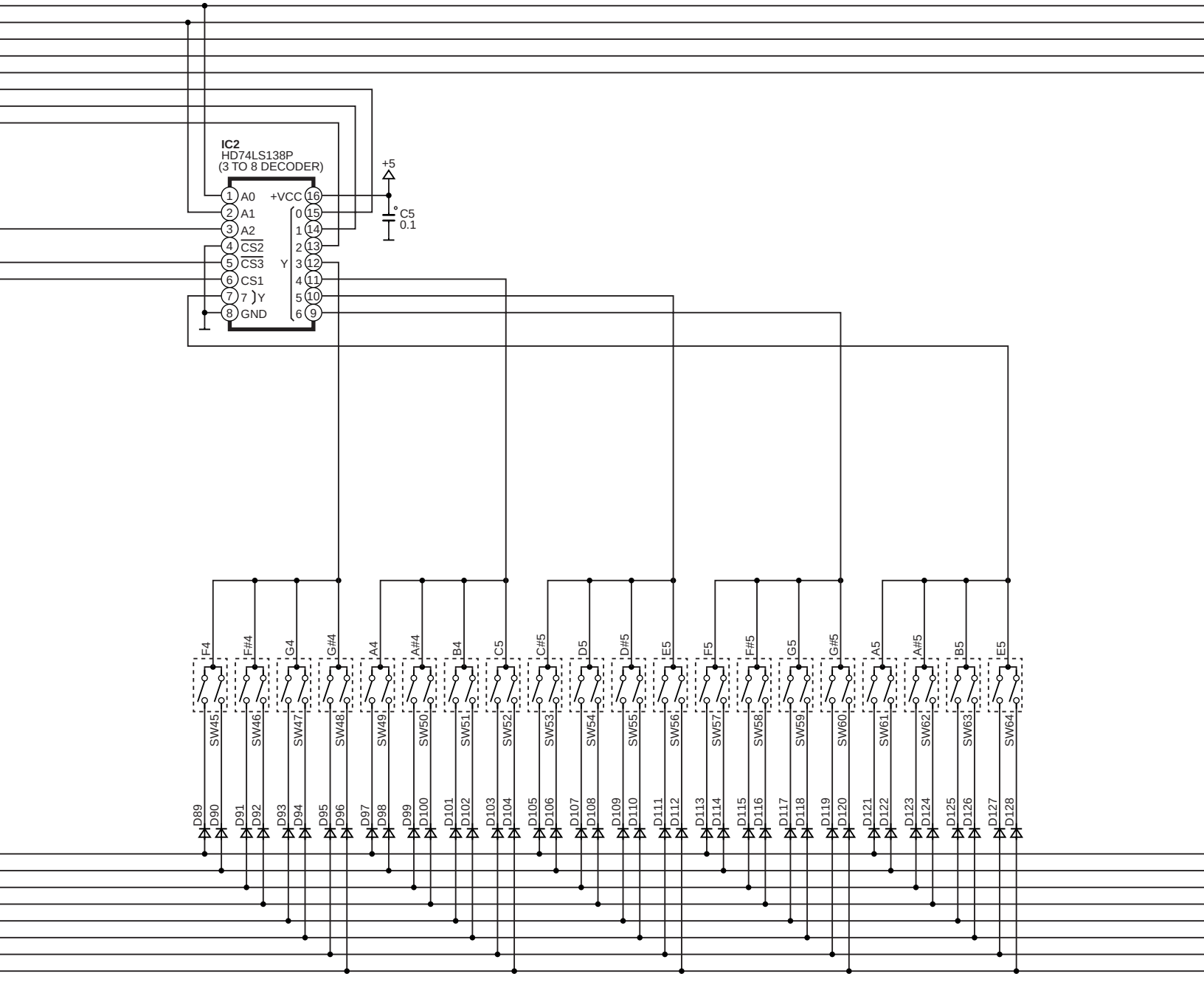
SCHEMATIC DIAGRAM-27

F MKB2 CIRCUIT

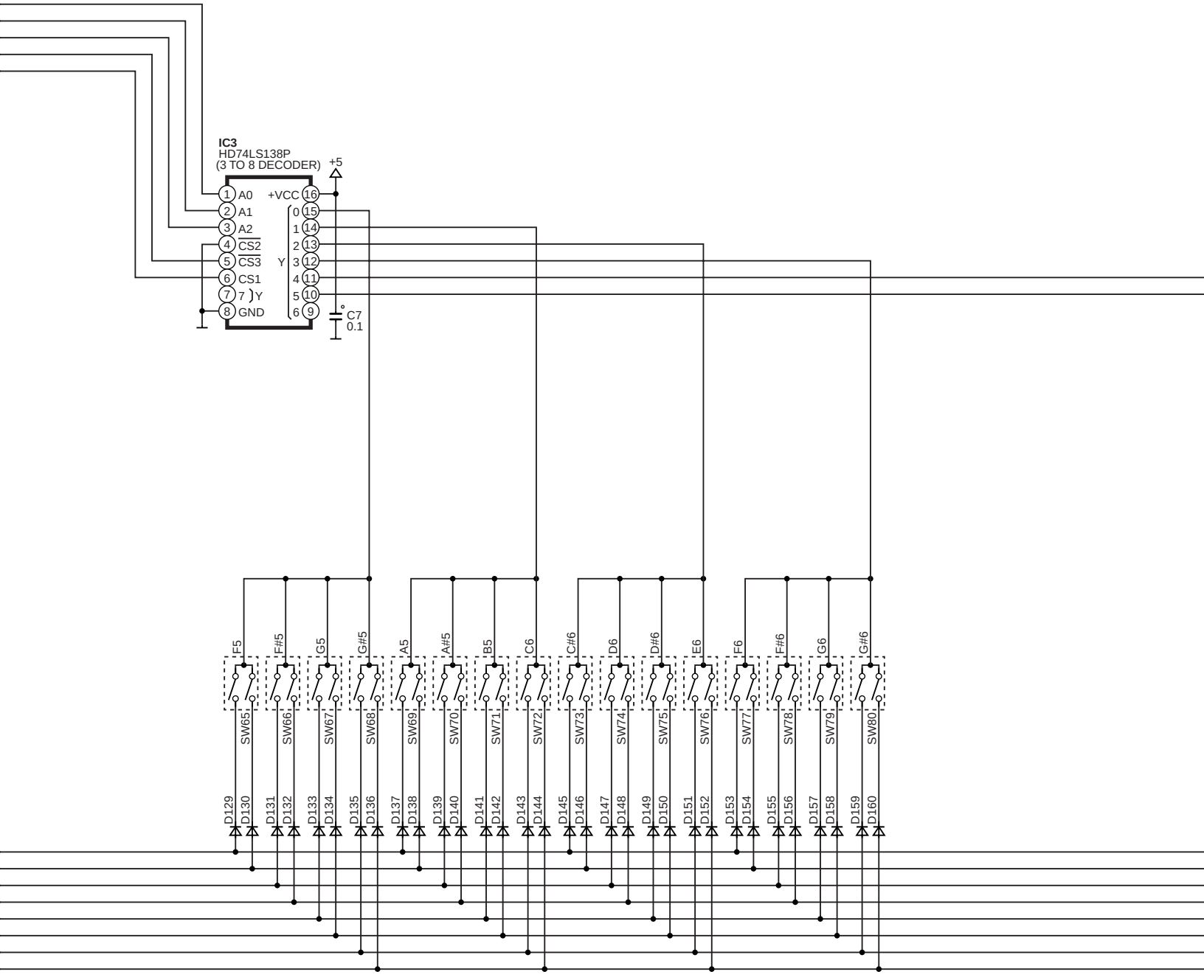


UNLESS OTHERWISE SPECIFIED:
DIODES ARE MA165.

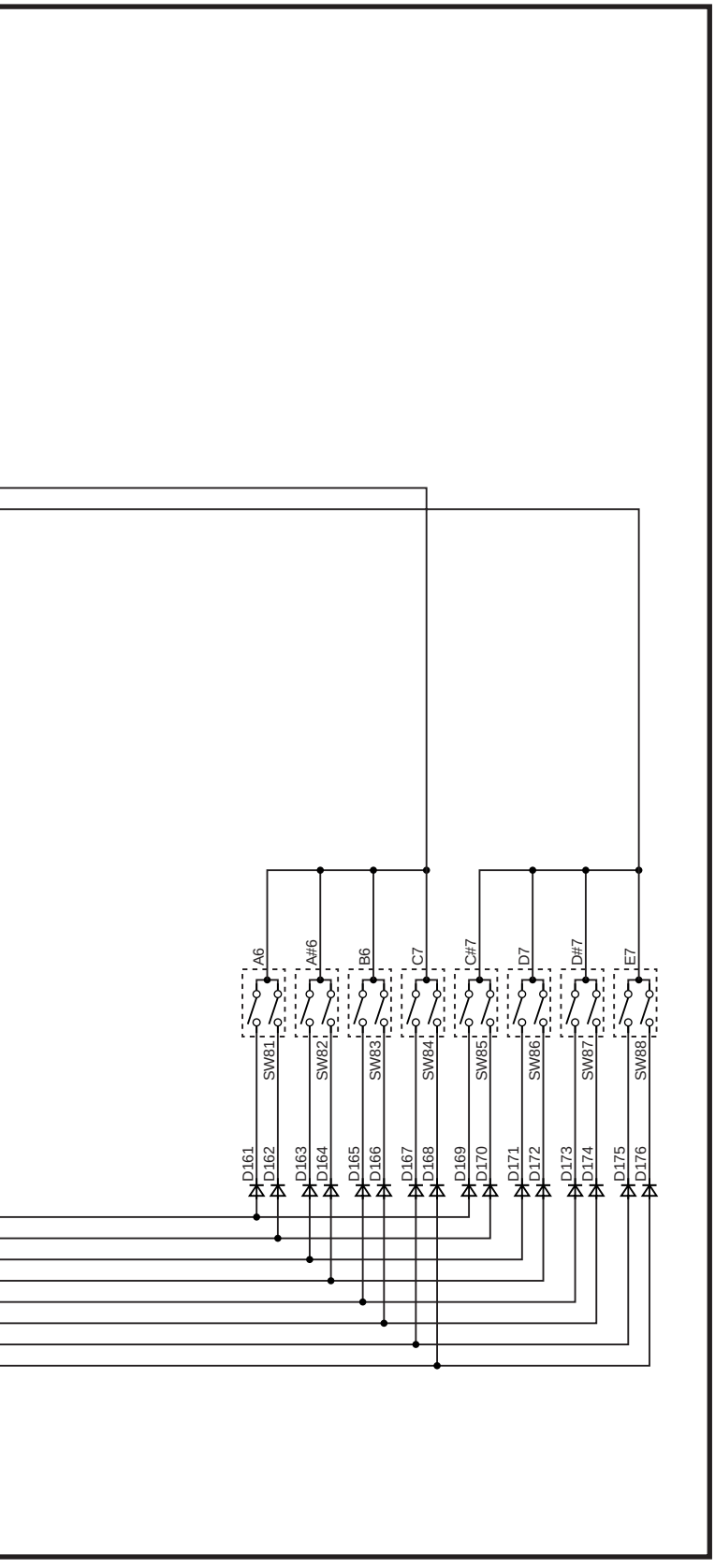
SCHEMATIC DIAGRAM-28



SCHEMATIC DIAGRAM-29

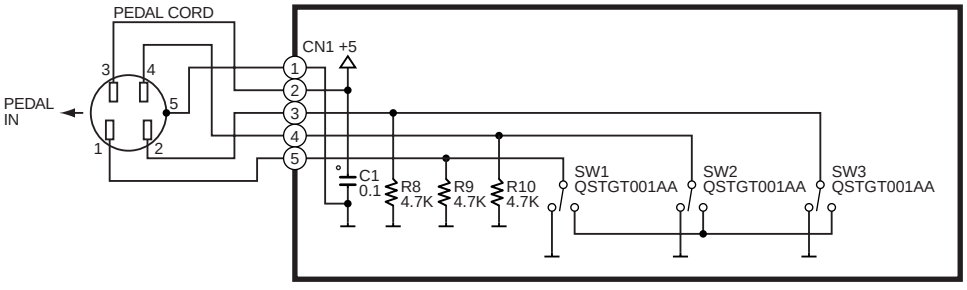


SCHEMATIC DIAGRAM-30

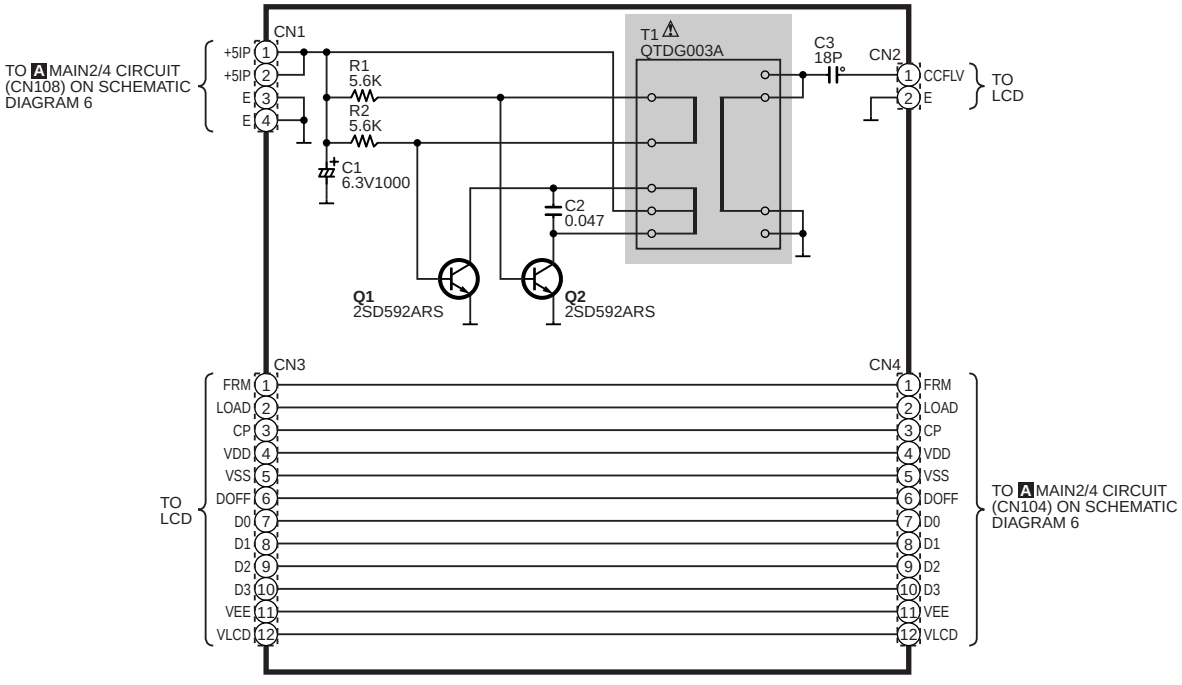


SCHEMATIC DIAGRAM-31

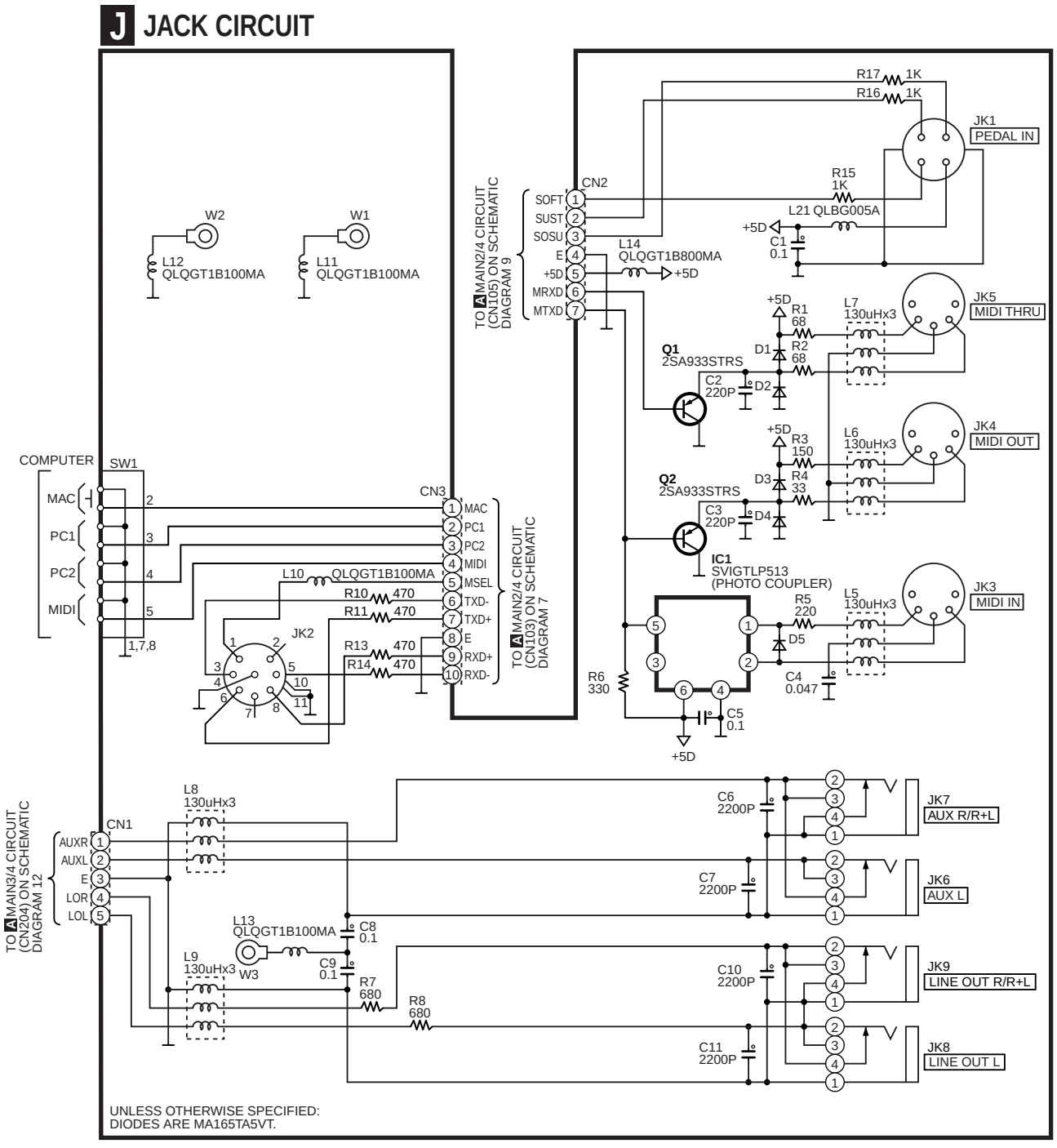
G PKB CIRCUIT



I INVL CIRCUIT

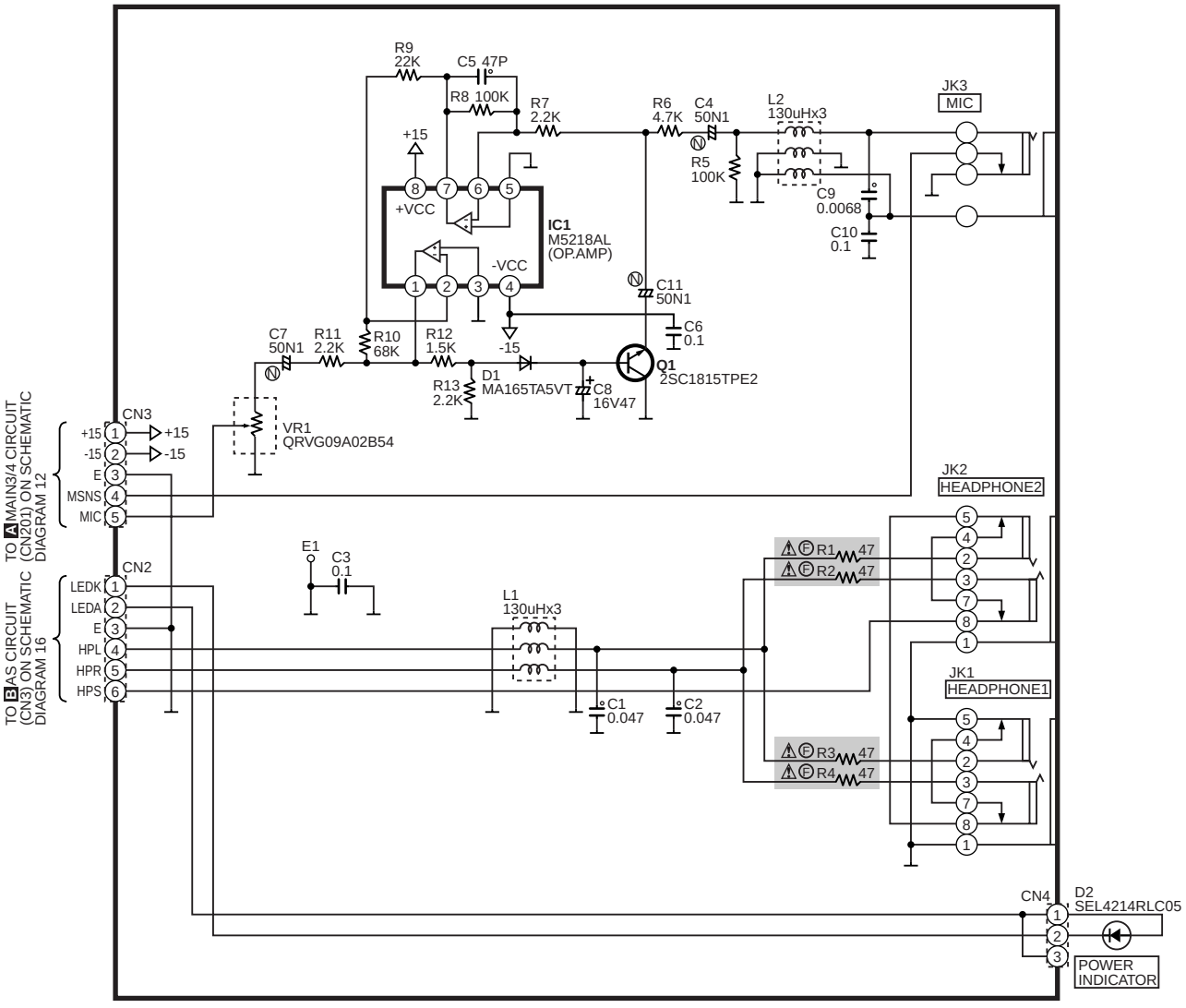


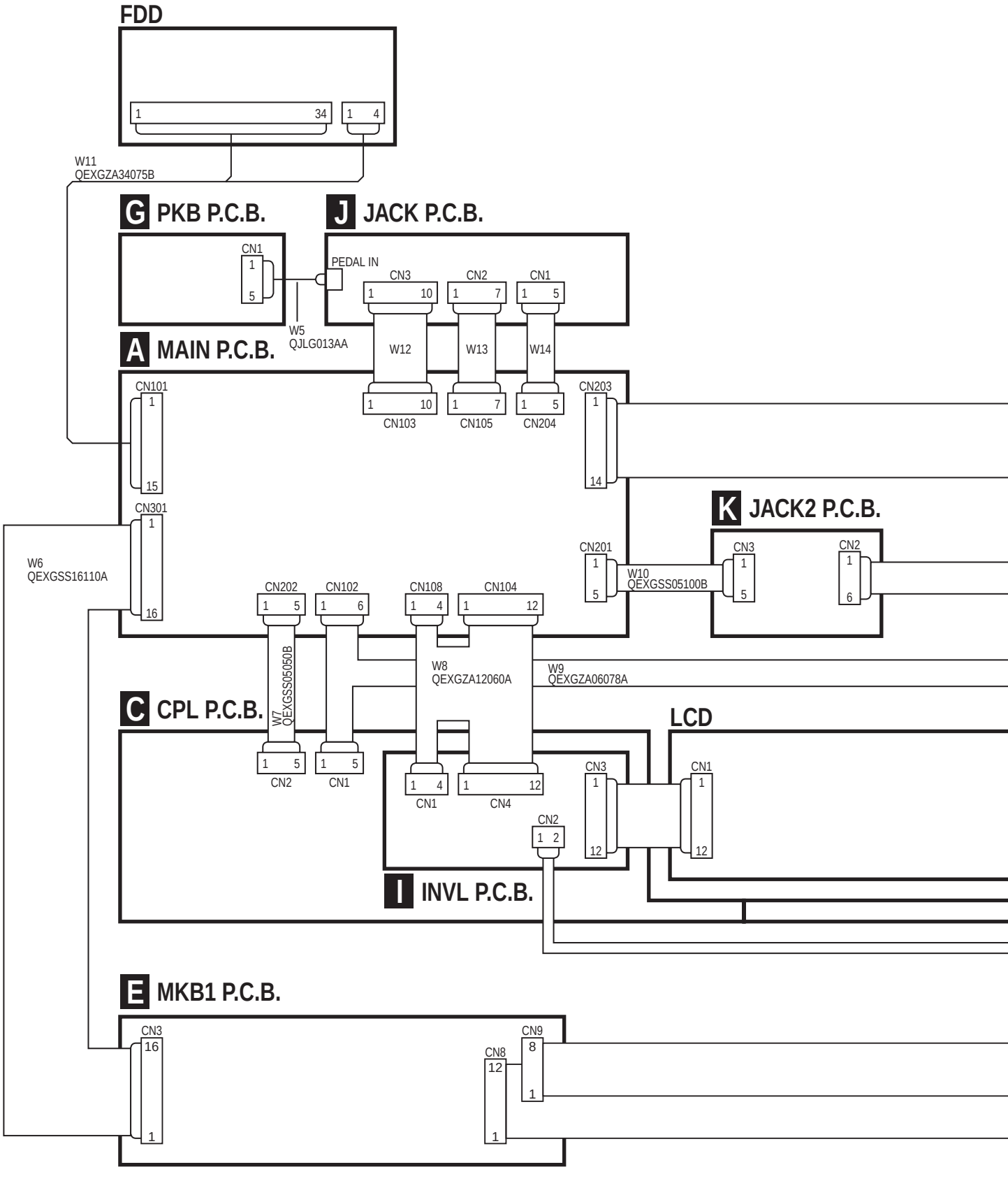
SCHEMATIC DIAGRAM-32

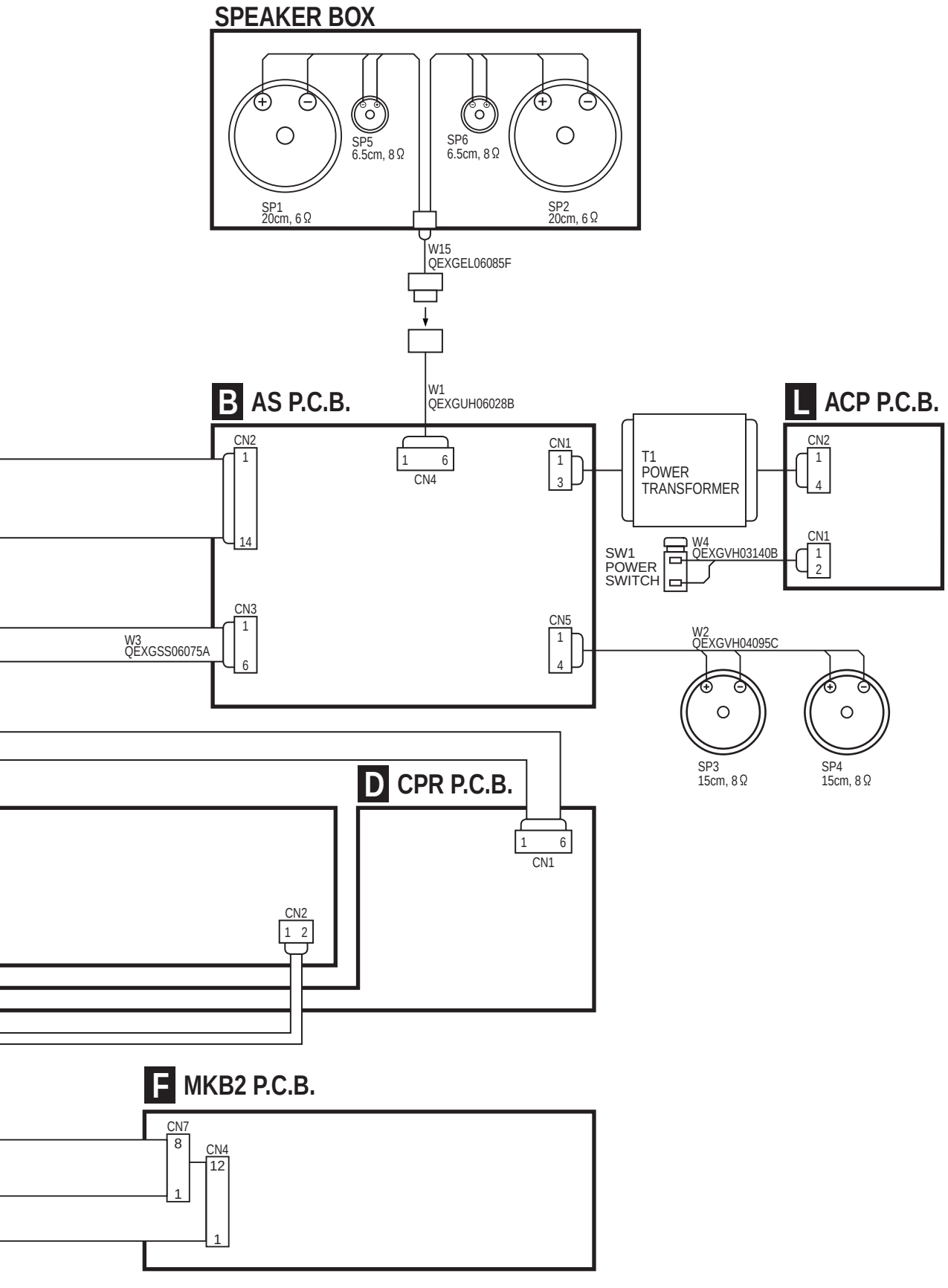


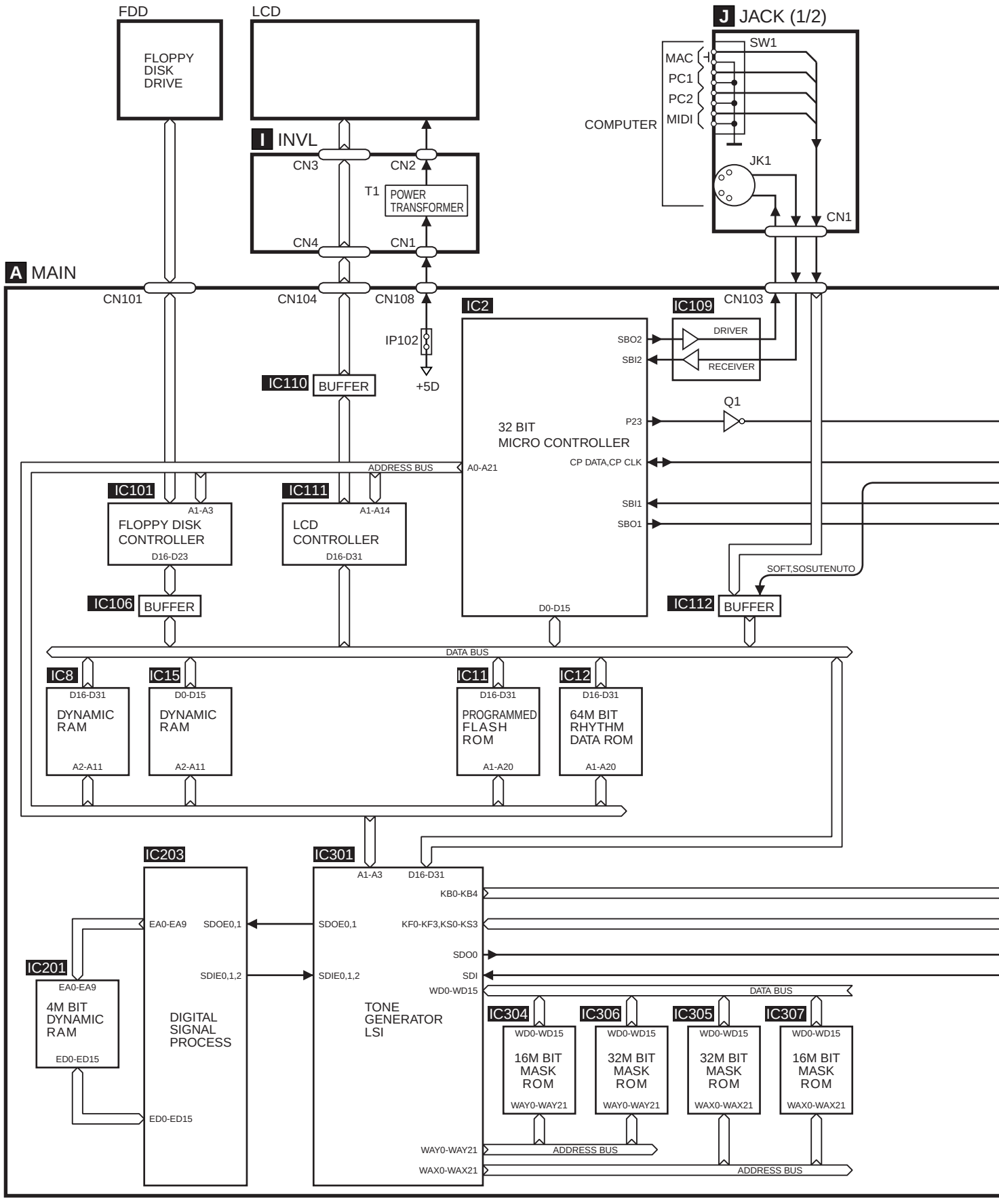
SCHEMATIC DIAGRAM-33

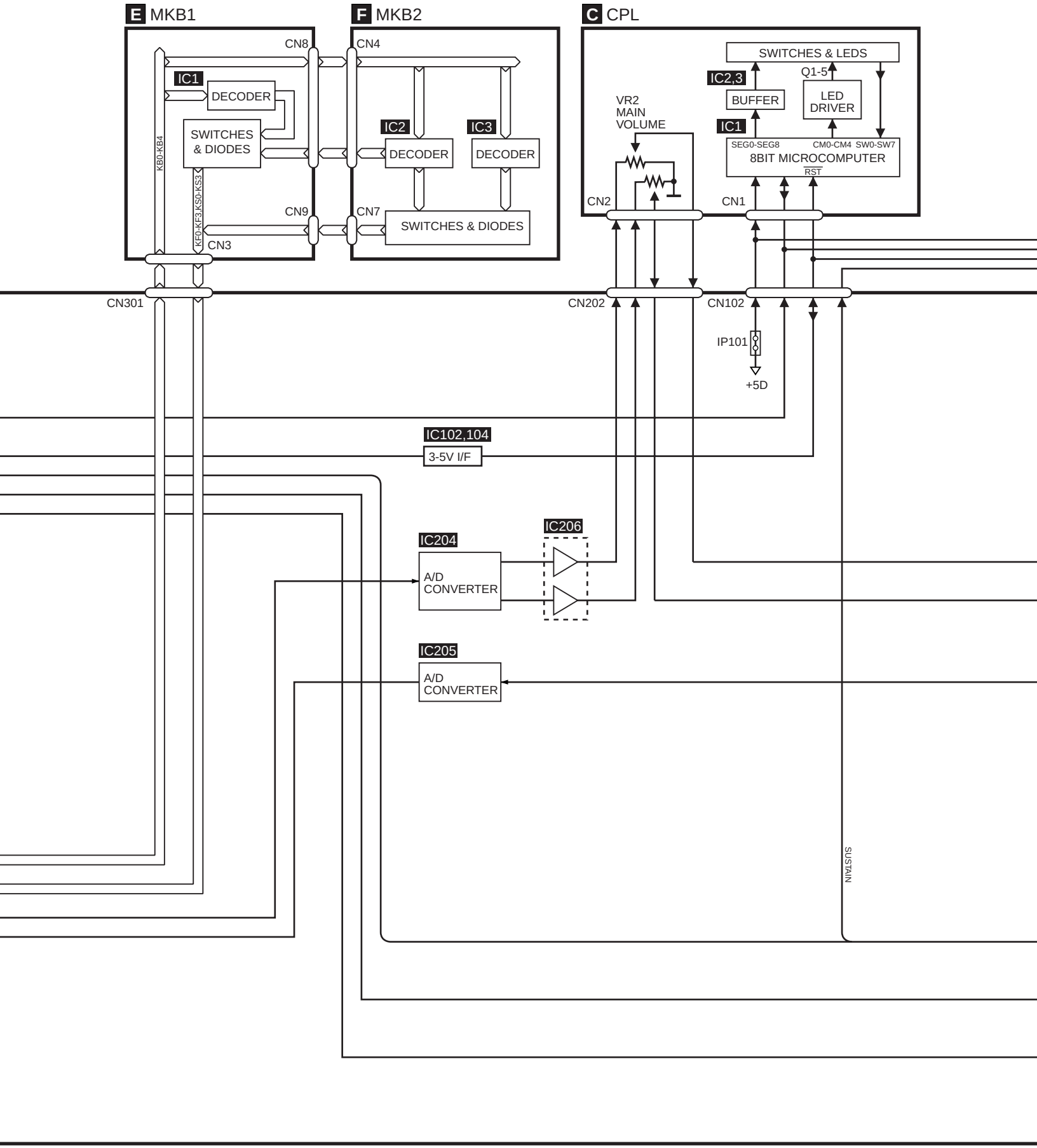
K JACK2 CIRCUIT

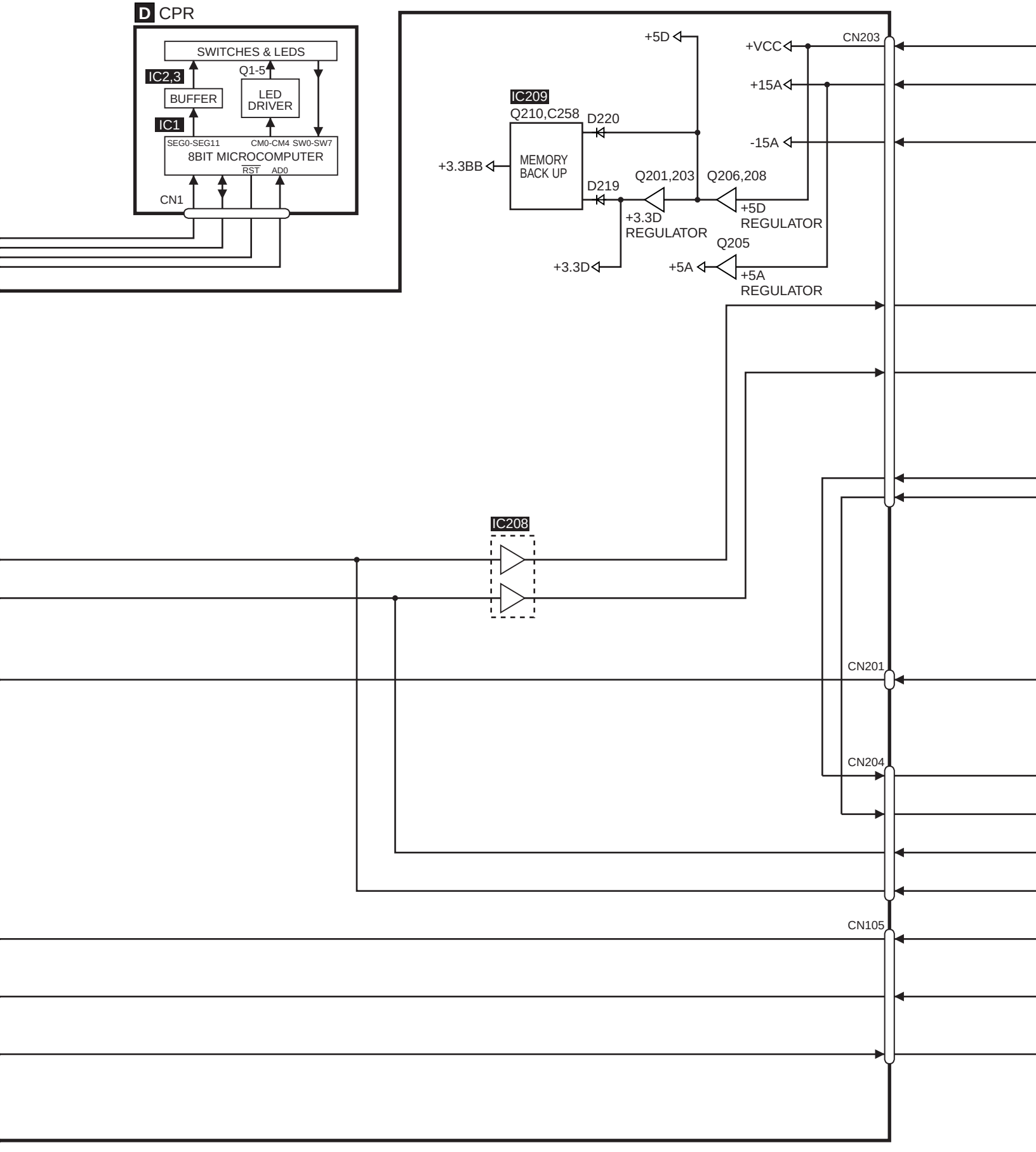


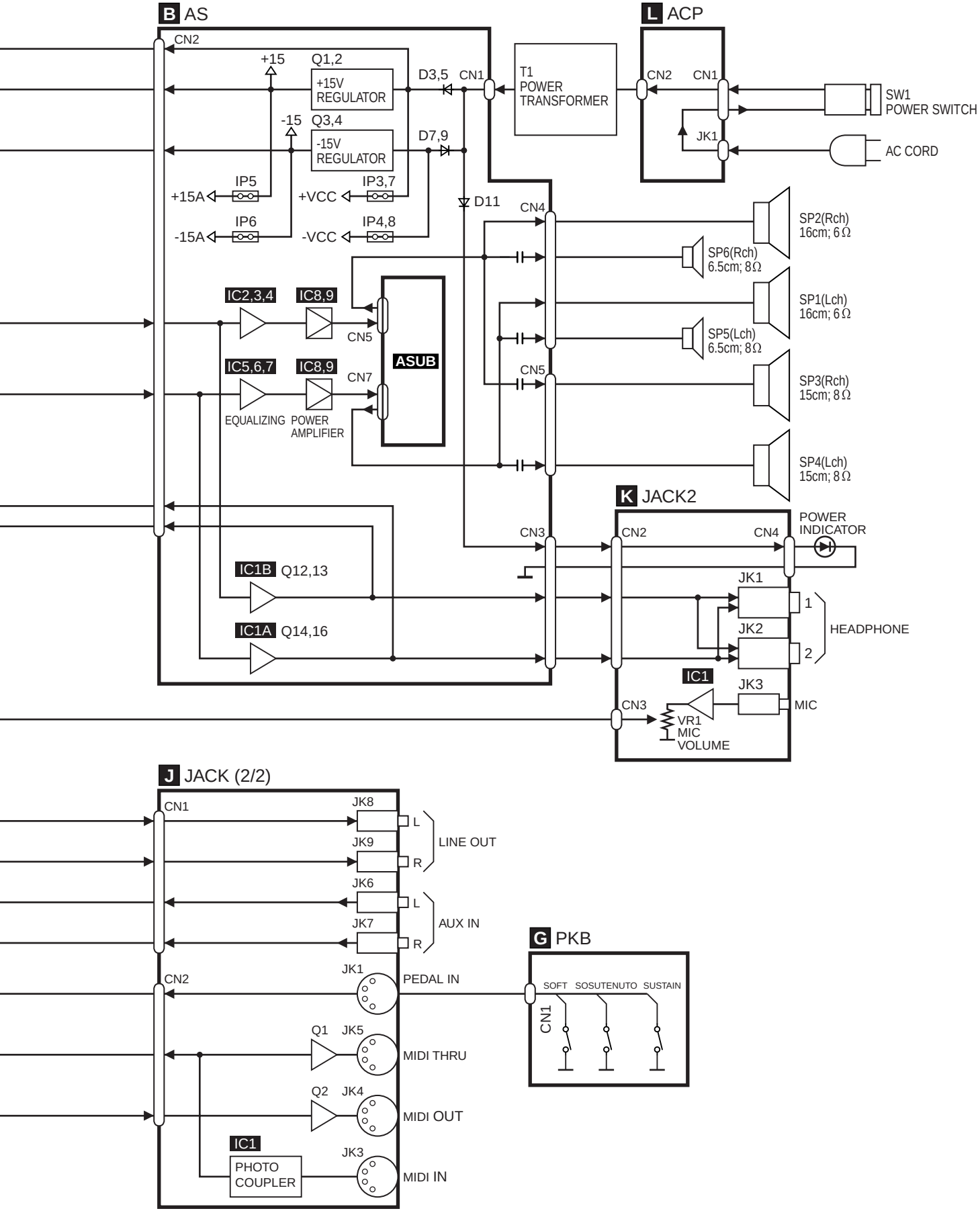

FDD
1
34
1
4
W11
QEXGZA34075B
G PKB P.C.B.
J JACK P.C.B.
CN1
1
5
PEDAL IN
CN3
1
10
CN2
1
7
CN1
1
5
W5
QJLG013AA
W12
W13
W14
A MAIN P.C.B.
CN101
1
15
CN103
1
10
CN105
1
7
CN204
1
5
CN203
1
14
CN301
1
16
W6
QEXGSS16110A
K JACK2 P.C.B.
CN201
1
5
W10
QEXGSS05100B
CN3
1
5
CN2
1
6
CN202
1
5
CN102
1
6
CN108
1
4
CN104
1
12
W8
QEXGZA12060A
W9
QEXGZA06078A
W7
QEXGSS05050B
C CPL P.C.B.
LCD
CN2
1
5
CN1
1
5
CN1
1
4
CN4
1
12
CN2
1
2
CN3
1
12
CN1
1
12
I INVL P.C.B.
E MKB1 P.C.B.
CN3
16
1
CN8
12
1
CN9
8
1


SPEAKER BOX
SP5
6.5cm, 8 Ω
SP6
6.5cm, 8 Ω
SP1
20cm, 6 Ω
SP2
20cm, 6 Ω
W15
QEXGEL06085F
W1
QEXGUH06028B
B AS P.C.B.
CN2
1
14
CN4
1 6
CN1
1
3
T1
POWER
TRANSFORMER
L ACP P.C.B.
CN2
1
4
CN1
1
2
W4
QEXGVH03140B
SW1
POWER
SWITCH
CN3
1
6
W3
QEXGSS06075A
CN5
1
4
W2
QEXGVH04095C
SP3
15cm, 8 Ω
SP4
15cm, 8 Ω
D CPR P.C.B.
CN1
1 6
CN2
1 2
F MKB2 P.C.B.
CN7
8
1
CN4
12
1


FDD
FLOPPY DISK DRIVE
LCD
J JACK (1/2)
SW1
MAC
PC1
PC2
MIDI
COMPUTER
JK1
CN1
I INVL
CN3
CN2
T1
POWER TRANSFORMER
CN4
CN1
A MAIN
CN101
CN104
CN108
CN103
IP102
+5D
IC110
BUFFER
IC2
IC109
DRIVER
RECEIVER
SBO2
SBI2
Q1
P23
32 BIT MICRO CONTROLLER
CP DATA,CP CLK
ADDRESS BUS
A0-A21
SBI1
SBO1
IC101
A1-A3
FLOPPY DISK CONTROLLER
D16-D23
IC111
A1-A14
LCD CONTROLLER
D16-D31
SOFT,SOSUTENUTO
IC106
BUFFER
D0-D15
IC112
BUFFER
DATA BUS
IC8
D16-D31
DYNAMIC RAM
A2-A11
IC15
D0-D15
DYNAMIC RAM
A2-A11
IC11
D16-D31
PROGRAMMED FLASH ROM
A1-A20
IC12
D16-D31
64M BIT RHYTHM DATA ROM
A1-A20
IC203
IC301
A1-A3
D16-D31
KB0-KB4
EA0-EA9
SDOE0,1
SDOE0,1
KF0-KF3,KS0-KS3
SDO0
IC201
SDIE0,1,2
SDIE0,1,2
SDI
WD0-WD15
DATA BUS
EA0-EA9
4M BIT DYNAMIC RAM
ED0-ED15
DIGITAL SIGNAL PROCESS
TONE GENERATOR LSI
IC304
IC306
IC305
IC307
WD0-WD15
16M BIT MASK ROM
WAY0-WAY21
32M BIT MASK ROM
WAY0-WAY21
32M BIT MASK ROM
WAX0-WAX21
16M BIT MASK ROM
WAX0-WAX21
ED0-ED15
WAY0-WAY21
ADDRESS BUS
WAX0-WAX21
ADDRESS BUS


E MKB1
F MKB2
C CPL
CN8
CN4
IC1
DECODER
SWITCHES & DIODES
KB0-KB4
KF0-KF3,KS0-KS3
IC2
IC3
DECODER
DECODER
CN9
CN7
SWITCHES & DIODES
CN3
SWITCHES & LEDS
Q1-5
IC2,3
BUFFER
LED DRIVER
VR2 MAIN VOLUME
IC1
SEG0-SEG8
CM0-CM4
SW0-SW7
8BIT MICROCOMPUTER
RST
CN2
CN1
CN301
CN202
CN102
IP101
+5D
IC102,104
3-5V I/F
IC206
IC204
A/D CONVERTER
IC205
A/D CONVERTER
SUSTAIN

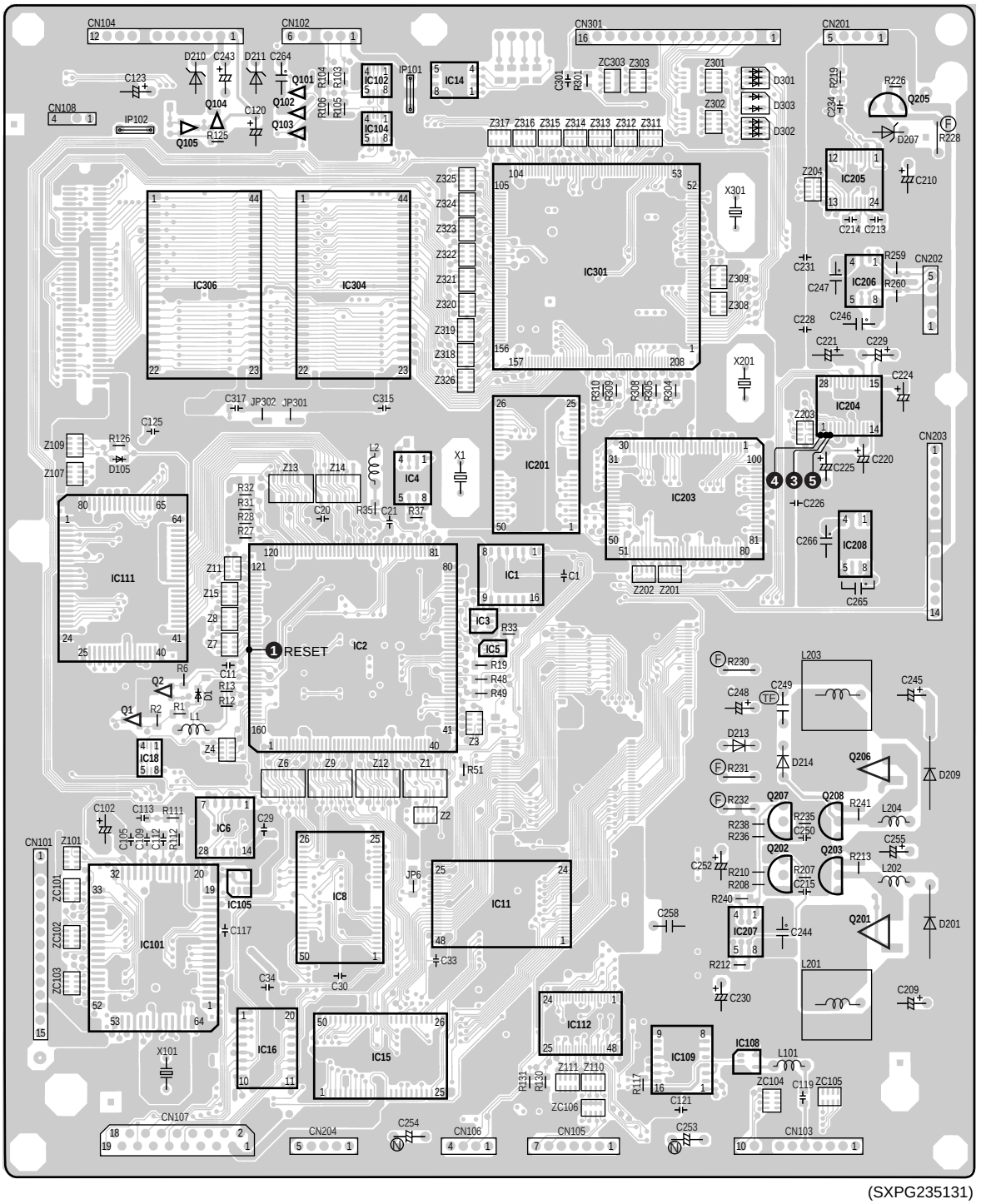

D CPR
SWITCHES & LEDS
IC2,3
Q1-5
BUFFER
LED DRIVER
IC1
SEG0-SEG11
CM0-CM4
SW0-SW7
8BIT MICROCOMPUTER
RST
AD0
CN1
+5D
+VCC
CN203
+15A
IC209
Q210,C258
D220
-15A
+3.3BB
MEMORY BACK UP
Q201,203
Q206,208
D219
+5D REGULATOR
+3.3D REGULATOR
Q205
+3.3D
+5A
+5A REGULATOR
IC208
CN201
CN204
CN105


B AS
CN2
+15
Q1,2
+15V REGULATOR
D3,5
CN1
T1 POWER TRANSFORMER
L ACP
CN2
CN1
SW1 POWER SWITCH
JK1
AC CORD
-15
Q3,4
-15V REGULATOR
D7,9
IP5
+15A
IP3,7
+VCC
D11
IP6
-15A
IP4,8
-VCC
CN4
SP2(Rch) 16cm; 6Ω
SP6(Rch) 6.5cm; 8Ω
SP1(Lch) 16cm; 6Ω
SP5(Lch) 6.5cm; 8Ω
SP3(Rch) 15cm; 8Ω
SP4(Lch) 15cm; 8Ω
IC2,3,4
IC8,9
CN5
ASUB
IC5,6,7
IC8,9
CN7
EQUALIZING
POWER AMPLIFIER
CN5
K JACK2
POWER INDICATOR
CN3
CN2
CN4
IC1B Q12,13
IC1A Q14,16
JK1
JK2
1
2
HEADPHONE
IC1
JK3
MIC
CN3
VR1 MIC VOLUME
J JACK (2/2)
CN1
JK8
L
JK9
R
LINE OUT
JK6
L
JK7
R
AUX IN
G PKB
CN2
JK1
PEDAL IN
SOFT
SOSUTENUTO
SUSTAIN
CN1
Q1
JK5
MIDI THRU
Q2
JK4
MIDI OUT
IC1
PHOTO COUPLER
JK3
MIDI IN

A B C D E F

1 2 3 4 5 6 7

A MAIN P.C.B. (COMPONENT SIDE)



(SXPG235131)

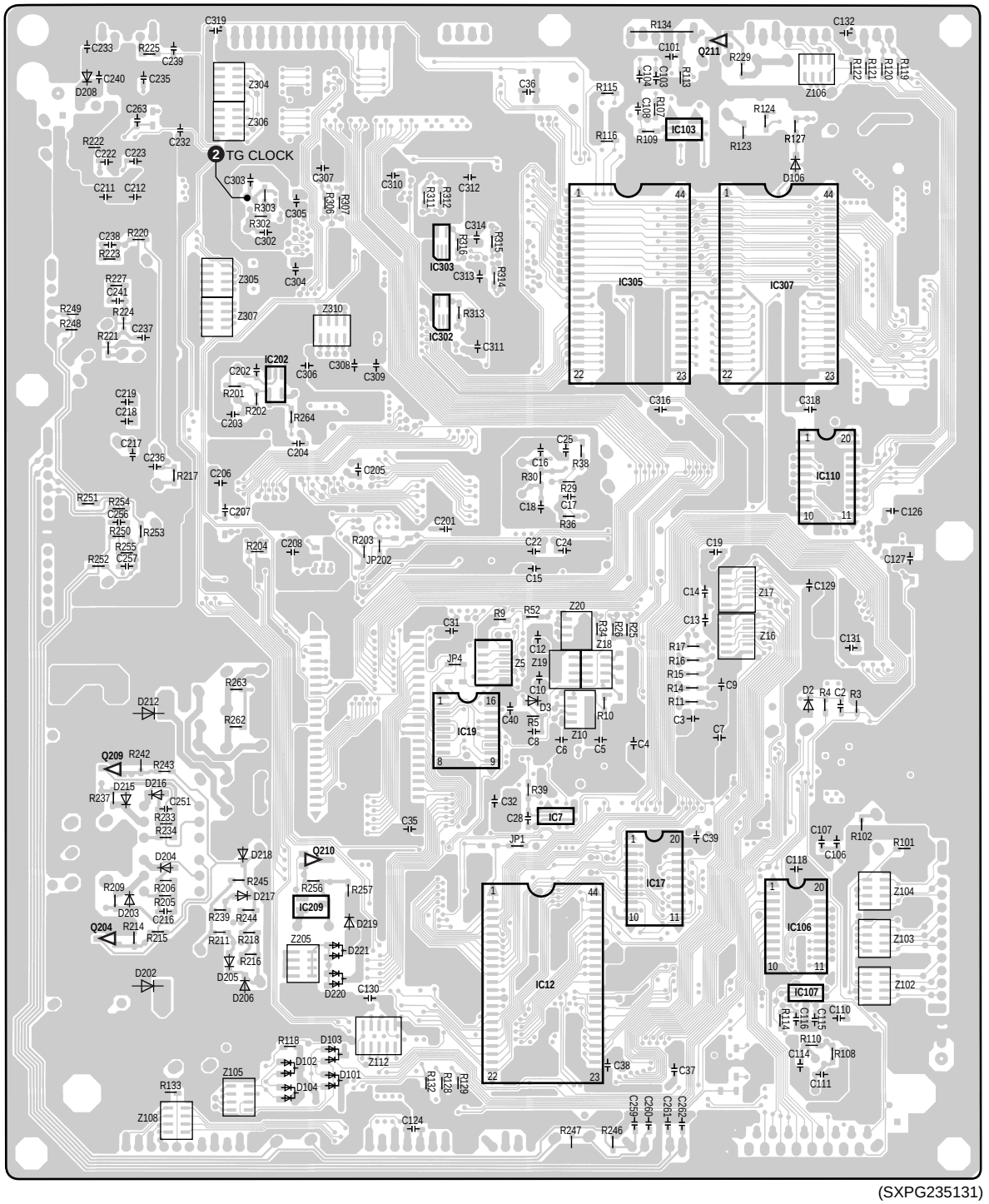
ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
A MAIN P.C.B. (COMPONENT SIDE)											
IC1	D-4	Q206	E-5	Z101	A-6	L202	E-6	R228	F-2	C220	E-3
IC2	C-4	Q207	E-5	Z107	A-4	L203	E-5	R230	E-5	C221	E-3
IC3	C-4	Q208	E-5	Z109	A-3	L204	E-5	R231	E-5	C224	F-3
IC4	C-4	D1	B-5	Z110	D-7	X1	C-4	R232	E-5	C225	E-3
IC5	C-4	D105	A-3	Z111	D-7	X101	B-7	R235	E-5	C226	E-4
IC6	B-5	D201	F-6	Z201	D-4	X201	E-3	R236	E-5	C228	E-3
IC8	C-6	D207	E-2	Z202	D-4	X301	E-2	R238	E-5	C229	E-3
IC11	D-6	D209	F-5	Z203	E-3	R1	B-5	R240	E-6	C230	E-6
IC14	C-1	D210	B-1	Z204	E-2	R2	B-5	R241	E-5	C231	E-2
IC15	C-7	D211	B-1	Z301	E-1	R6	B-5	R259	F-2	C234	E-2
IC16	B-7	D213	E-5	Z302	E-2	R12	B-5	R260	F-3	C243	B-1
IC18	B-5	D214	E-5	Z303	D-1	R13	B-5	R301	D-1	C244	E-6
IC101	B-6	D301	E-1	Z308	E-3	R19	C-5	R304	D-3	C245	F-5
IC102	C-1	D302	E-2	Z309	E-3	R27	B-4	R305	D-3	C246	E-3
IC104	C-2	D303	E-2	Z311	D-2	R28	B-4	R308	D-3	C247	E-2
IC105	B-6	CN101	A-6	Z312	D-2	R31	B-4	R309	D-3	C248	E-5
IC108	E-7	CN102	B-1	Z313	D-2	R32	B-4	R310	D-3	C249	E-5
IC109	D-7	CN103	E-7	Z314	D-2	R33	C-4	C1	D-4	C250	E-5
IC111	A-4	CN104	A-1	Z315	D-2	R35	C-4	C11	B-5	C252	E-6
IC112	D-7	CN105	D-7	Z316	D-2	R37	C-4	C20	B-4	C253	D-7
IC201	D-4	CN106	C-7	Z317	C-2	R48	C-5	C21	C-4	C254	C-7
IC203	D-4	CN107	B-7	Z318	C-3	R49	C-5	C29	B-5	C255	E-6
IC204	E-3	CN108	A-2	Z319	C-3	R51	C-5	C30	C-6	C258	D-6
IC205	E-2	CN201	E-1	Z320	C-3	R103	C-1	C33	C-6	C264	B-1
IC206	E-2	CN202	F-3	Z321	C-3	R104	B-1	C34	B-6	C265	E-4
IC207	E-6	CN203	F-4	Z322	C-2	R105	C-2	C102	A-5	C266	E-4
IC208	E-4	CN204	C-7	Z323	C-2	R106	B-2	C105	A-6	C301	D-1
IC301	D-3	CN301	D-1	Z324	C-2	R111	B-5	C109	B-6	C315	C-3
IC304	B-2	Z1	C-5	Z325	C-2	R112	B-6	C112	B-6	C317	B-3
IC306	B-2	Z2	C-5	Z326	C-3	R117	D-7	C113	A-5	IP101	C-1
Q1	A-5	Z3	C-5	ZC101	A-6	R125	B-2	C117	B-6	IP102	A-2
Q2	B-5	Z4	B-5	ZC102	A-6	R126	A-3	C119	E-7	JP6	C-6
Q101	B-2	Z6	B-5	ZC103	A-6	R130	D-7	C120	B-2	JP301	B-3
Q102	B-2	Z7	B-4	ZC104	E-7	R131	C-7	C121	D-7	JP302	B-3
Q103	B-2	Z8	B-4	ZC105	E-7	R207	E-6	C123	A-2		
Q104	B-2	Z9	B-5	ZC106	D-7	R208	E-6	C125	B-3		
Q105	B-2	Z11	B-4	ZC303	D-1	R210	E-6	C209	F-6		
Q201	E-6	Z12	C-5	L1	B-5	R212	E-6	C210	F-2		
Q202	E-6	Z13	B-4	L2	C-4	R213	E-6	C213	E-2		
Q203	E-6	Z14	B-4	L101	E-7	R219	E-1	C214	E-2		
Q205	E-2	Z15	B-4	L201	E-6	R226	E-1	C215	E-6		

A B C D E F

1 2 3 4 5 6 7

A MAIN P.C.B. (FOIL SIDE)

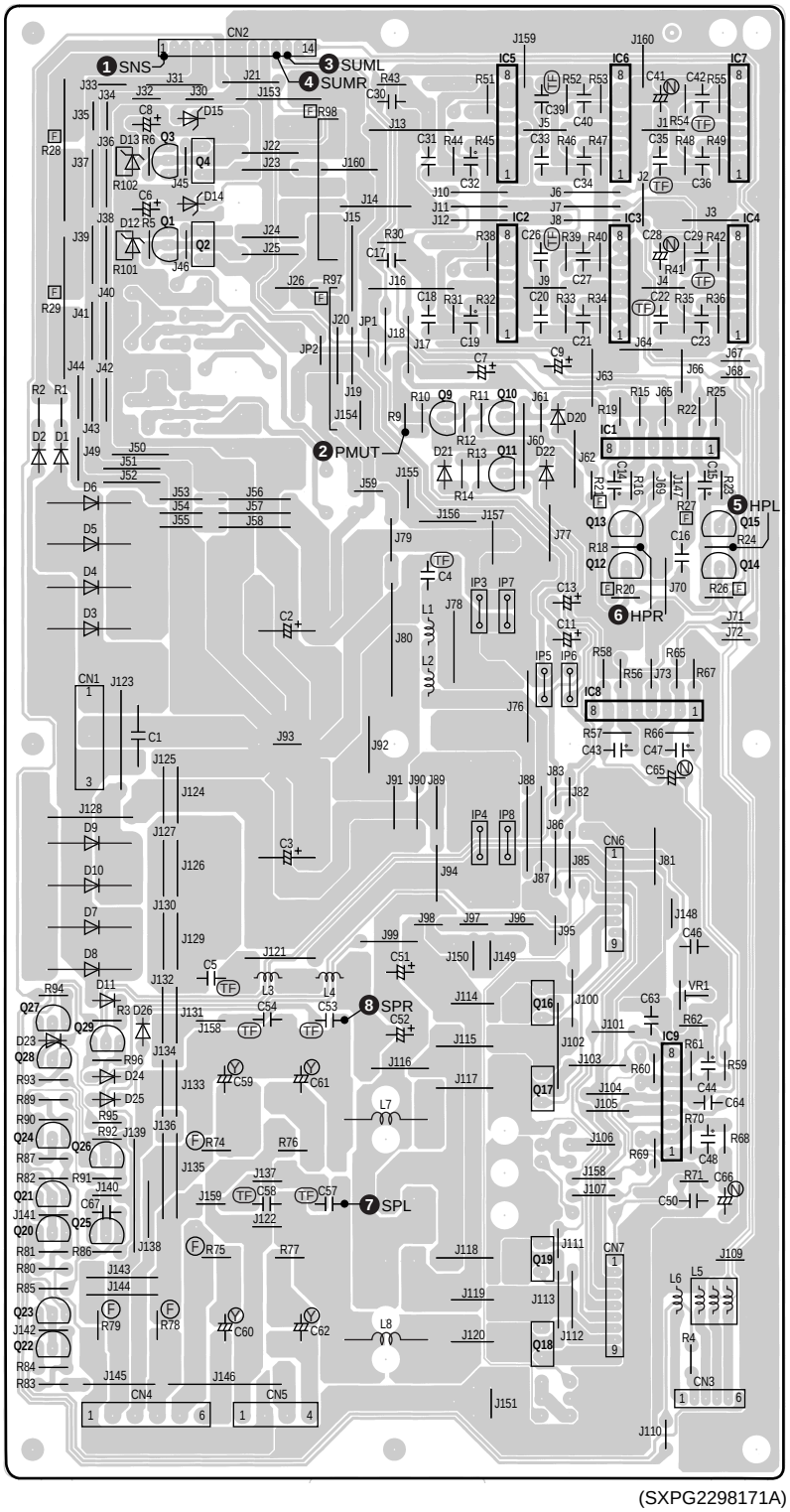


(SXPG235131)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
A MAIN P.C.B. (FOIL SIDE)											
IC7	D-5	Z18	D-5	R115	D-2	R245	B-6	C22	D-4	C218	A-3
IC12	D-6	Z19	D-5	R116	D-2	R246	D-7	C24	D-4	C219	A-3
IC17	D-6	Z20	D-4	R118	B-7	R247	D-7	C25	D-3	C222	A-2
IC19	C-5	Z102	E-6	R119	F-1	R248	A-3	C28	D-5	C223	A-2
IC103	D-2	Z103	E-6	R120	E-1	R249	A-3	C31	C-4	C232	B-2
IC106	E-6	Z104	E-6	R121	E-1	R250	A-4	C32	C-5	C233	A-1
IC107	E-6	Z105	B-7	R122	E-1	R251	A-4	C35	C-5	C235	B-1
IC110	E-4	Z106	E-1	R123	E-2	R252	A-4	C36	D-2	C236	B-4
IC202	B-3	Z108	B-7	R124	E-2	R253	B-4	C37	D-7	C237	B-3
IC209	B-6	Z112	C-7	R127	E-2	R254	A-4	C38	D-7	C238	A-2
IC302	C-3	Z205	B-6	R128	C-7	R255	A-4	C39	D-5	C239	B-1
IC303	C-2	Z304	B-2	R129	C-7	R256	B-6	C40	C-5	C240	A-1
IC305	D-3	Z305	B-3	R132	C-7	R257	C-6	C101	D-1	C241	A-3
IC307	E-3	Z306	B-2	R133	B-7	R262	B-5	C103	D-1	C251	B-5
Q204	A-6	Z307	B-3	R134	D-1	R263	B-5	C104	D-1	C256	A-4
Q209	A-5	Z310	B-3	R201	B-3	R264	B-3	C106	E-6	C257	A-4
Q210	B-6	R3	E-5	R202	B-3	R302	B-2	C107	E-6	C259	D-7
Q211	E-1	R4	E-5	R203	C-4	R303	B-2	C108	D-2	C260	D-7
D2	E-5	R5	D-5	R204	B-4	R306	B-2	C110	E-6	C261	D-7
D3	D-5	R9	C-4	R205	B-6	R307	C-2	C111	E-7	C262	D-7
D101	C-7	R10	D-5	R206	B-6	R311	C-2	C114	E-7	C263	A-2
D102	B-7	R11	D-5	R209	A-6	R312	C-2	C115	E-6	C302	B-2
D103	C-7	R14	D-5	R211	B-6	R313	C-3	C116	E-6	C303	B-2
D104	B-7	R15	D-5	R214	A-6	R314	C-3	C118	E-6	C304	B-3
D106	E-2	R16	D-5	R215	B-6	R315	C-2	C124	C-7	C305	B-2
D202	B-6	R17	D-5	R216	B-6	R316	C-2	C126	F-4	C306	B-3
D203	A-6	R25	D-4	R217	B-4	C2	E-5	C127	F-4	C307	B-2
D204	B-6	R26	D-4	R218	B-6	C3	D-5	C129	E-4	C308	C-3
D205	B-6	R29	D-4	R220	A-2	C4	D-5	C130	C-6	C309	C-3
D206	B-6	R30	D-4	R221	A-3	C5	D-5	C131	E-5	C310	C-2
D208	A-1	R34	D-4	R222	A-2	C6	D-5	C132	E-1	C311	C-3
D212	B-5	R36	D-4	R223	A-2	C7	E-5	C201	C-4	C312	C-2
D215	A-5	R38	D-3	R224	A-3	C8	D-5	C202	B-3	C313	C-3
D216	B-5	R39	D-5	R225	B-1	C9	E-5	C203	B-3	C314	C-2
D217	B-6	R52	D-4	R227	A-3	C10	D-5	C204	B-3	C316	D-3
D218	B-6	R101	F-6	R229	E-1	C12	D-4	C205	C-4	C318	E-3
D219	C-6	R102	E-5	R233	B-5	C13	E-4	C206	B-4	C319	B-1
D220	C-6	R107	D-2	R234	B-5	C14	E-4	C207	B-4	JP1	D-6
D221	C-6	R108	E-7	R237	A-5	C15	D-4	C208	B-4	JP4	C-5
Z5	C-5	R109	D-2	R239	B-6	C16	D-3	C211	A-2	JP202	C-4
Z10	D-5	R110	E-7	R242	B-5	C17	D-4	C212	A-2		
Z16	E-4	R113	D-1	R243	B-5	C18	D-4	C216	B-6		
Z17	E-4	R114	E-6	R244	B-6	C19	E-4	C217	A-3		

B AS P.C.B.

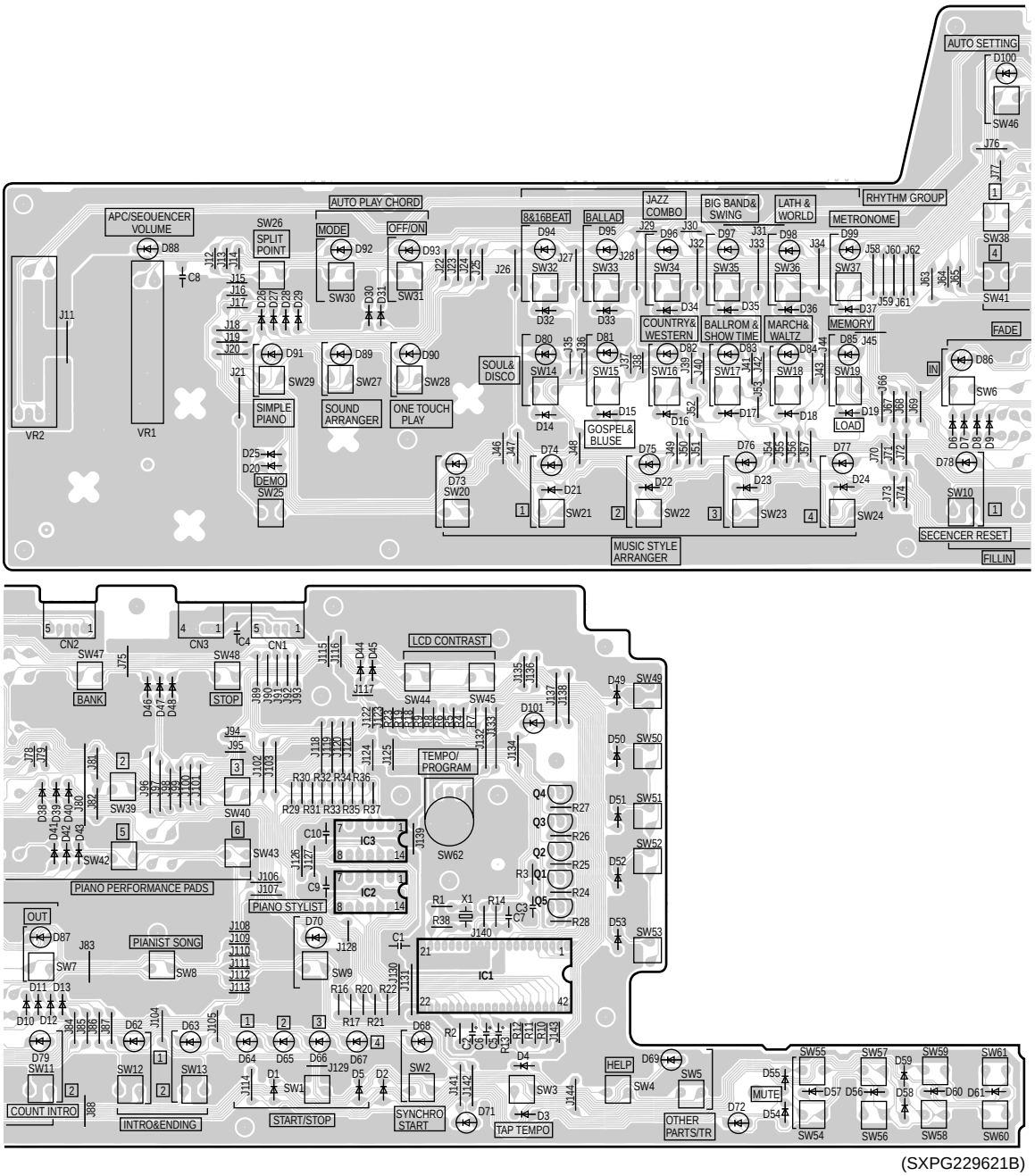


(SXPG2298171A)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
B AS P.C.B.											
IC1	D-3	D6	A-3	R10	C-3	R52	C-1	R96	A-6	C41	D-1
IC2	C-2	D7	A-5	R11	C-3	R53	C-1	R97	B-2	C42	D-1
IC3	D-2	D8	A-5	R12	C-3	R54	D-1	R98	B-2	C43	C-4
IC4	D-2	D9	A-5	R13	C-3	R55	D-1	R101	A-2	C44	D-6
IC5	C-1	D10	A-5	R14	C-3	R56	D-4	R102	A-2	C46	D-5
IC6	D-1	D11	A-5	R15	D-3	R57	C-4	C1	A-4	C47	D-4
IC7	D-1	D12	A-2	R16	D-3	R58	C-4	C2	B-4	C48	D-6
IC8	C-4	D13	A-2	R18	C-3	R59	D-6	C3	B-5	C50	D-6
IC9	D-6	D14	B-2	R19	C-3	R60	D-6	C4	C-4	C51	B-5
Q1	A-2	D15	B-2	R20	D-4	R61	D-6	C5	B-5	C52	B-6
Q2	B-2	D20	C-3	R21	C-3	R62	D-6	C6	A-2	C53	B-6
Q3	A-2	D21	C-3	R22	D-3	R65	D-4	C7	C-3	C54	B-6
Q4	B-2	D22	C-3	R23	D-3	R66	D-4	C8	A-2	C57	B-6
Q9	C-3	D23	A-6	R24	D-3	R67	D-4	C9	C-3	C58	B-6
Q10	C-3	D24	A-6	R25	D-3	R68	D-6	C11	C-4	C59	B-6
Q11	C-3	D25	A-6	R26	D-4	R69	D-6	C13	C-4	C60	B-7
Q12	C-4	D26	A-6	R27	D-3	R70	D-6	C14	C-3	C61	B-6
Q13	C-3	CN1	A-4	R28	A-2	R71	D-6	C15	D-3	C62	B-7
Q14	D-4	CN2	B-1	R29	A-2	R74	B-6	C16	D-3	C63	D-6
Q15	D-3	CN3	D-7	R30	B-2	R75	B-7	C17	B-2	C64	D-6
Q16	C-5	CN4	A-7	R31	C-2	R76	B-6	C18	C-2	C65	D-4
Q17	C-6	CN5	B-7	R32	C-2	R77	B-7	C19	C-2	C66	D-6
Q18	C-7	CN6	C-5	R33	C-2	R78	A-7	C20	C-2	C67	A-6
Q19	C-7	CN7	C-7	R34	C-2	R79	A-7	C21	C-2	IP3	C-4
Q20	A-6	L1	C-4	R35	D-2	R80	A-7	C22	D-2	IP4	C-5
Q21	A-6	L2	C-4	R36	D-2	R81	A-7	C23	D-2	IP5	C-4
Q22	A-7	L3	B-5	R38	C-2	R82	A-6	C26	C-2	IP6	C-4
Q23	A-7	L4	B-5	R39	C-2	R83	A-7	C27	C-2	IP7	C-4
Q24	A-6	L5	D-7	R40	C-2	R84	A-7	C28	D-2	IP8	C-5
Q25	A-6	L6	D-7	R41	D-2	R85	A-7	C29	D-2	JP1	B-2
Q26	A-6	L7	B-6	R42	D-2	R86	A-7	C30	B-1	JP2	B-3
Q27	A-6	L8	B-7	R43	B-1	R87	A-6	C31	C-2	VR1	D-5
Q28	A-6	R1	A-3	R44	C-2	R89	A-6	C32	C-2		
Q29	A-6	R2	A-3	R45	C-2	R90	A-6	C33	C-2		
D1	A-3	R3	A-6	R46	C-2	R91	A-6	C34	C-2		
D2	A-3	R4	D-7	R47	C-2	R92	A-6	C35	D-2		
D3	A-4	R5	A-2	R48	D-2	R93	A-6	C36	D-2		
D4	A-4	R6	A-2	R49	D-2	R94	A-5	C39	C-1		
D5	A-3	R9	C-3	R51	C-1	R95	A-6	C40	C-1		

C CPL P.C.B.

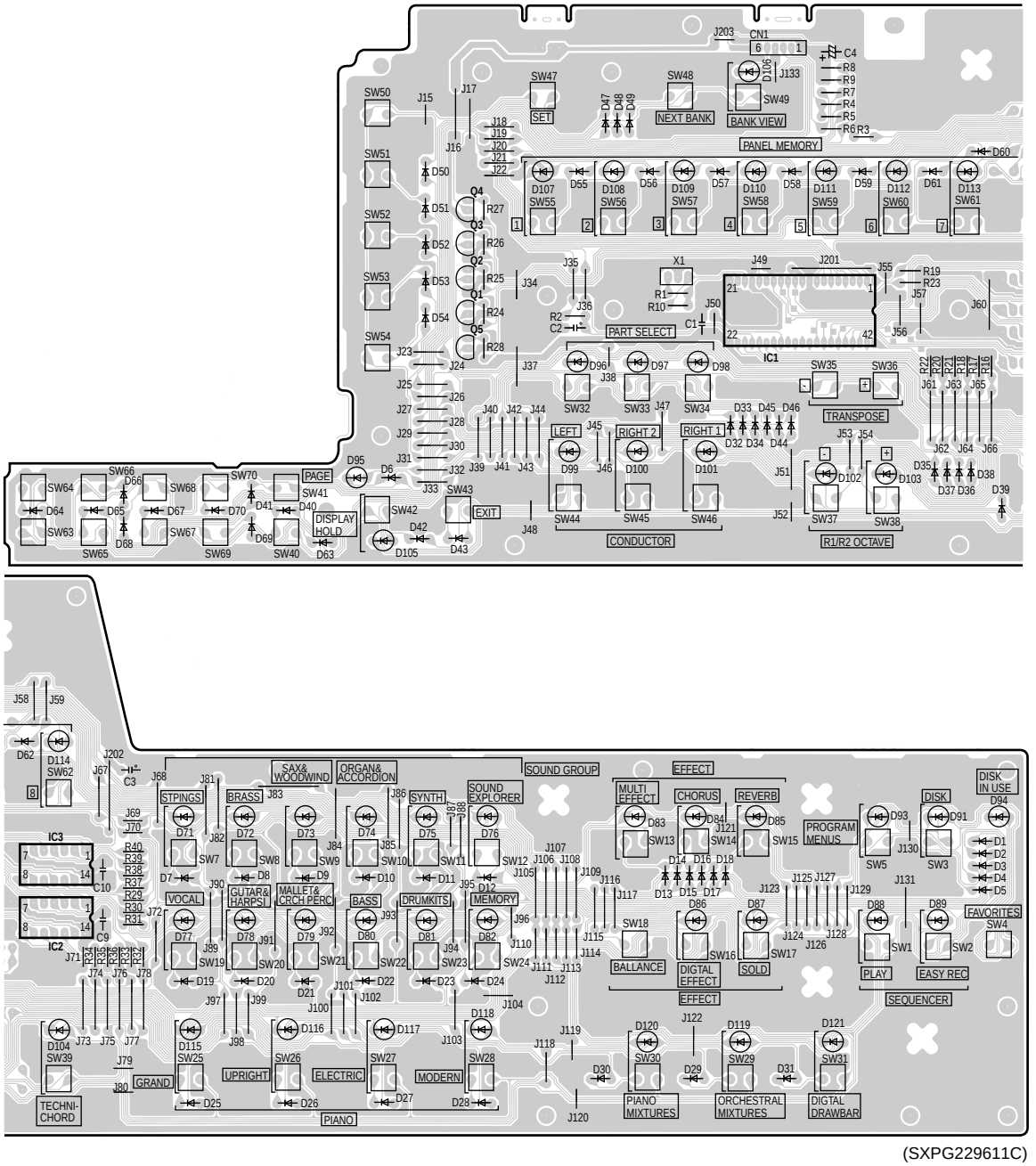


(SXPG229621B)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
C CPL P.C.B.											
IC1	C-6	D31	C-3	D69	D-6	R3	C-5	C4	B-4	SW32	C-2
IC2	C-5	D32	C-3	D70	B-6	R4	C-5	C5	C-6	SW33	D-2
IC3	C-5	D33	D-3	D71	C-7	R5	C-5	C6	C-6	SW34	D-2
Q1	D-5	D34	D-3	D72	D-7	R6	C-5	C7	C-6	SW35	D-2
Q2	D-5	D35	D-3	D73	C-3	R7	C-5	C8	B-2	SW36	E-2
Q3	D-5	D36	E-3	D74	C-3	R8	C-5	C9	B-5	SW37	E-2
Q4	D-5	D37	E-3	D75	D-3	R9	C-5	C10	B-5	SW38	F-2
Q5	D-6	D38	A-5	D76	D-3	R10	C-6	SW1	B-6	SW39	A-5
D1	B-6	D39	A-5	D77	E-3	R11	C-6	SW2	C-6	SW40	B-5
D2	C-6	D40	A-5	D78	F-3	R12	C-6	SW3	C-6	SW41	F-2
D3	C-7	D41	A-5	D79	A-6	R13	C-6	SW4	D-6	SW42	A-5
D4	C-6	D42	A-5	D80	C-3	R14	C-6	SW5	D-6	SW43	B-5
D5	C-6	D43	A-5	D81	D-3	R16	B-6	SW6	F-3	SW44	C-4
D6	E-3	D44	C-4	D82	D-3	R17	C-6	SW7	A-6	SW45	C-4
D7	F-3	D45	C-4	D83	D-3	R18	C-5	SW8	B-6	SW46	F-2
D8	F-3	D46	A-4	D84	E-3	R19	C-5	SW9	B-6	SW47	A-4
D9	F-3	D47	B-4	D85	E-3	R20	C-6	SW10	E-4	SW48	B-4
D10	A-6	D48	B-4	D86	F-3	R21	C-6	SW11	A-6	SW49	D-4
D11	A-6	D49	D-4	D87	A-6	R22	C-6	SW12	A-6	SW50	D-5
D12	A-6	D50	D-5	D88	A-2	R23	C-5	SW13	B-6	SW51	D-5
D13	A-6	D51	D-5	D89	B-3	R24	D-5	SW14	C-3	SW52	D-5
D14	C-3	D52	D-5	D90	C-3	R25	D-5	SW15	D-3	SW53	D-6
D15	D-3	D53	D-6	D91	B-3	R26	D-5	SW16	D-3	SW54	E-7
D16	D-3	D54	E-7	D92	B-2	R27	D-5	SW17	D-3	SW55	E-6
D17	D-3	D55	E-6	D93	C-2	R28	D-6	SW18	E-3	SW56	E-7
D18	E-3	D56	E-6	D94	C-2	R29	B-5	SW19	E-3	SW57	E-6
D19	E-3	D57	E-6	D95	D-2	R30	B-5	SW20	C-4	SW58	E-7
D20	B-3	D58	E-6	D96	D-2	R31	B-5	SW21	D-4	SW59	E-6
D21	D-4	D59	E-6	D97	D-2	R32	B-5	SW22	D-4	SW60	F-7
D22	D-4	D60	E-6	D98	E-2	R33	B-5	SW23	D-4	SW61	F-6
D23	D-4	D61	F-6	D99	E-2	R34	B-5	SW24	E-4	SW62	C-5
D24	E-4	D62	A-6	D100	F-1	R35	C-5	SW25	B-4	VR1	A-3
D25	B-3	D63	B-6	D101	C-5	R36	C-5	SW26	B-2	VR2	A-3
D26	B-3	D64	B-6	CN1	B-4	R37	C-5	SW27	B-3	X1	C-6
D27	B-3	D65	B-6	CN2	A-4	R38	C-6	SW28	C-3		
D28	B-3	D66	B-6	CN3	B-4	C1	C-6	SW29	B-3		
D29	B-3	D67	C-6	R1	C-6	C2	C-6	SW30	B-2		
D30	C-3	D68	C-6	R2	C-6	C3	C-6	SW31	C-2		

D CPR P.C.B.

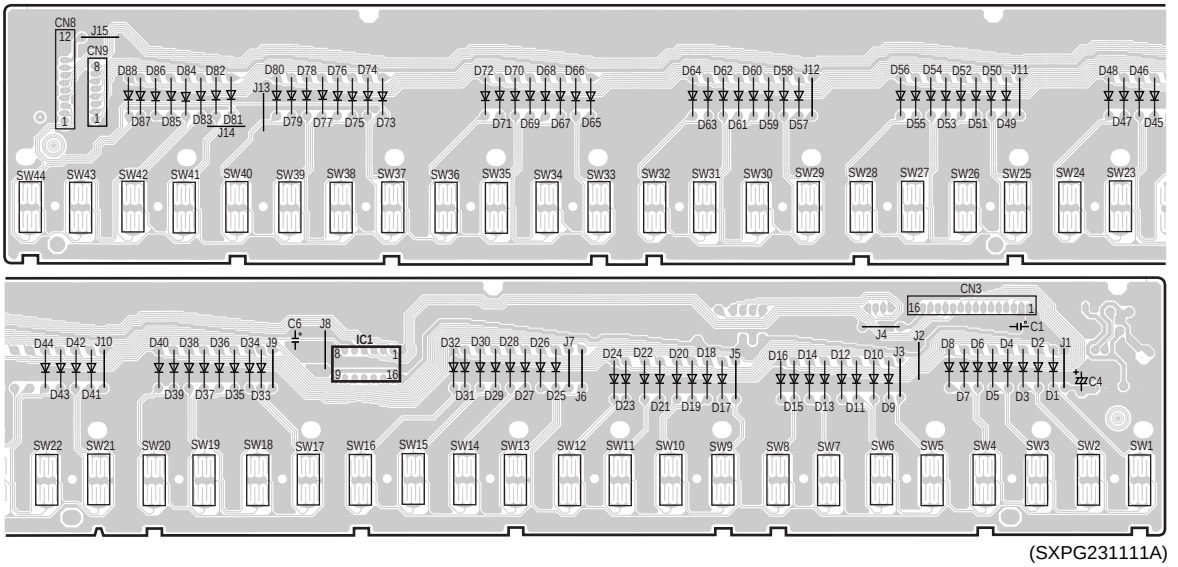


(SXPG229611C)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
D CPR P.C.B.											
IC1	E-3	D33	D-3	D73	B-5	D115	B-6	R38	A-5	SW33	D-3
IC2	A-6	D34	E-3	D74	C-5	D116	B-6	R39	A-5	SW34	D-3
IC3	A-5	D35	E-3	D75	C-5	D117	C-6	R40	A-5	SW35	E-3
Q1	C-3	D36	F-4	D76	C-5	D118	C-6	C1	D-3	SW36	E-3
Q2	C-2	D37	E-4	D77	B-6	D119	D-6	C2	D-3	SW37	E-4
Q3	C-2	D38	F-3	D78	B-6	D120	D-6	C3	A-5	SW38	E-4
Q4	C-2	D39	F-4	D79	B-6	D121	E-6	C4	E-1	SW39	A-6
Q5	C-3	D40	B-4	D80	C-6	CN1	E-1	C9	A-6	SW40	B-4
D1	F-5	D41	B-4	D81	C-6	R1	D-3	C10	A-5	SW41	B-4
D2	F-5	D42	C-4	D82	C-6	R2	D-3	SW1	E-6	SW42	C-4
D3	F-5	D43	C-4	D83	D-5	R3	E-2	SW2	E-6	SW43	C-4
D4	F-5	D44	E-3	D84	D-5	R4	E-2	SW3	E-5	SW44	D-4
D5	F-6	D45	E-3	D85	E-5	R5	E-2	SW4	F-6	SW45	D-4
D6	C-3	D46	E-3	D86	D-6	R6	E-2	SW5	E-5	SW46	D-4
D7	B-5	D47	D-2	D87	E-6	R7	E-2	SW7	B-5	SW47	C-2
D8	B-5	D48	D-2	D88	E-6	R8	E-1	SW8	B-5	SW48	D-2
D9	B-5	D49	D-2	D89	E-6	R9	E-2	SW9	B-5	SW49	D-2
D10	C-5	D50	C-2	D91	E-5	R10	D-3	SW10	C-5	SW50	C-2
D11	C-5	D51	C-2	D93	E-5	R16	F-3	SW11	C-5	SW51	C-2
D12	C-5	D52	C-2	D94	F-5	R17	F-3	SW12	C-5	SW52	C-2
D13	D-6	D53	C-3	D95	C-3	R18	F-3	SW13	D-5	SW53	C-3
D14	D-5	D54	C-3	D96	D-3	R19	E-3	SW14	D-5	SW54	C-3
D15	D-6	D55	D-2	D97	D-3	R20	E-3	SW15	E-5	SW55	D-2
D16	D-5	D56	D-2	D98	D-3	R21	E-3	SW16	D-6	SW56	D-2
D17	D-6	D57	D-2	D99	D-3	R22	E-3	SW17	E-6	SW57	D-2
D18	D-5	D58	E-2	D100	D-3	R23	E-3	SW18	D-6	SW58	D-2
D19	B-6	D59	E-2	D101	D-3	R24	C-3	SW19	B-6	SW59	E-2
D20	B-6	D60	F-2	D102	E-4	R25	C-3	SW20	B-6	SW60	E-2
D21	B-6	D61	E-2	D103	E-4	R26	C-2	SW21	B-6	SW61	F-2
D22	C-6	D62	A-5	D104	A-6	R27	C-2	SW22	C-6	SW62	A-5
D23	C-6	D63	B-4	D105	C-4	R28	C-3	SW23	C-6	SW63	A-4
D24	C-6	D64	A-4	D106	E-2	R29	A-6	SW24	C-6	SW64	A-4
D25	B-7	D65	A-4	D107	C-2	R30	A-6	SW25	B-6	SW65	A-4
D26	B-7	D66	A-4	D108	D-2	R31	A-6	SW26	B-6	SW66	A-4
D27	C-7	D67	B-4	D109	D-2	R32	A-6	SW27	C-6	SW67	B-4
D28	C-7	D68	A-4	D110	D-2	R33	A-6	SW28	C-6	SW68	B-4
D29	D-6	D69	B-4	D111	E-2	R34	A-6	SW29	D-6	SW69	B-4
D30	D-6	D70	B-4	D112	E-2	R35	A-6	SW30	D-6	SW70	B-4
D31	E-6	D71	B-5	D113	F-2	R36	A-6	SW31	E-6	X1	D-3
D32	D-3	D72	B-5	D114	A-5	R37	A-6	SW32	D-3		

E MKB1 P.C.B.



(SXPG231111A)

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
E MKB1 P.C.B.									
IC1	B-3	D28	C-3	D56	E-1	D84	B-1	SW18	B-3
D1	E-3	D29	C-3	D57	D-2	D85	A-2	SW19	B-3
D2	E-3	D30	C-3	D58	D-1	D86	A-1	SW20	A-3
D3	E-3	D31	C-3	D59	D-2	D87	A-2	SW21	A-3
D4	E-3	D32	C-3	D60	D-1	D88	A-1	SW22	A-3
D5	E-3	D33	B-3	D61	D-2	CN3	E-2	SW23	F-2
D6	E-3	D34	B-3	D62	D-1	CN8	A-1	SW24	E-2
D7	E-3	D35	B-3	D63	D-2	CN9	A-1	SW25	E-2
D8	E-3	D36	B-3	D64	D-1	C1	E-3	SW26	E-2
D9	E-3	D37	B-3	D65	C-2	C4	F-3	SW27	E-2
D10	E-3	D38	B-3	D66	C-1	C6	B-3	SW28	E-2
D11	E-3	D39	A-3	D67	C-2	SW1	F-3	SW29	D-2
D12	D-3	D40	A-3	D68	C-1	SW2	F-3	SW30	D-2
D13	D-3	D41	A-3	D69	C-2	SW3	E-3	SW31	D-2
D14	D-3	D42	A-3	D70	C-1	SW4	E-3	SW32	D-2
D15	D-3	D43	A-3	D71	C-2	SW5	E-3	SW33	C-2
D16	D-3	D44	A-3	D72	C-1	SW6	E-3	SW34	C-2
D17	D-3	D45	F-2	D73	B-2	SW7	D-3	SW35	C-2
D18	D-3	D46	F-1	D74	B-1	SW8	D-3	SW36	C-2
D19	D-3	D47	F-2	D75	B-2	SW9	D-3	SW37	B-2
D20	D-3	D48	F-1	D76	B-1	SW10	D-3	SW38	B-2
D21	D-3	D49	E-2	D77	B-2	SW11	C-3	SW39	B-2
D22	D-3	D50	E-1	D78	B-1	SW12	C-3	SW40	B-2
D23	C-3	D51	E-2	D79	B-2	SW13	C-3	SW41	B-2
D24	C-3	D52	E-1	D80	B-1	SW14	C-3	SW42	A-2
D25	C-3	D53	E-2	D81	B-2	SW15	C-3	SW43	A-2
D26	C-3	D54	E-1	D82	B-1	SW16	B-3	SW44	A-2
D27	C-3	D55	E-2	D83	B-2	SW17	B-3		